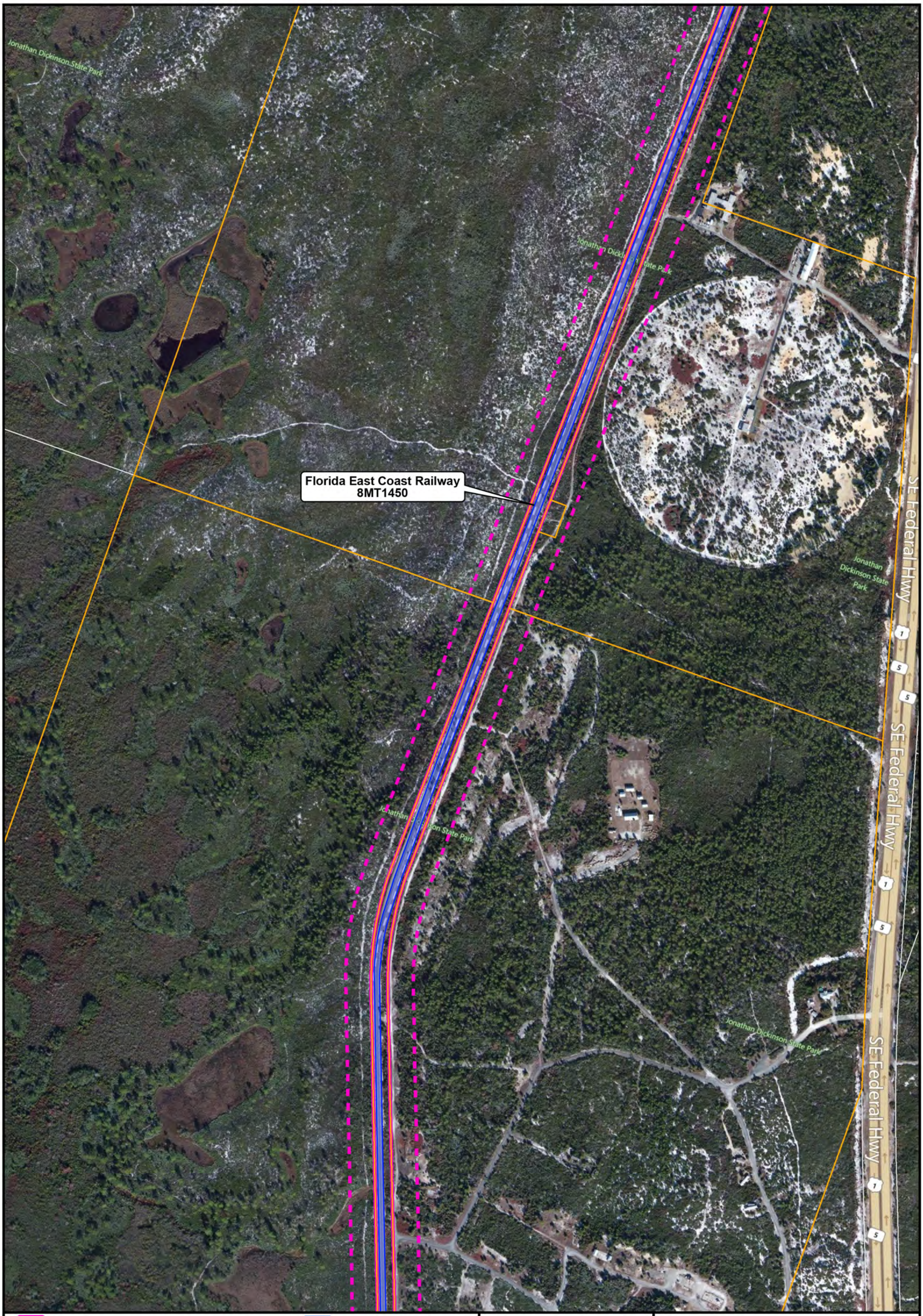


FEC ROW
150-Foot Buffer
Adjacent Parcel
Crossing Adjacent to Significant or Considered Significant District
Historic Station/Rail Related Resource
Historic Building
Historic Bridge
Historic District/ Resource Group
Historic Linear Resource
Historic Cemetery
Archaeological Site
Archaeological Zone

Note: The archaeological and historic APE are limited to the existing FEC ROW. Significant historic resources adjacent to the FEC ROW within a minimum of 150 feet were also identified through background research and reconnaissance survey.

Cultural Resources within the FEC ROW and Significant Historic Resources Adjacent to the FEC ROW within a Minimum of 150 feet

Martin County

0 300 600 Feet

Map 80

Florida East Coast Railway
8MT1450

FEC ROW
150-Foot Buffer
Adjacent Parcel
Crossing Adjacent to Significant or Considered Significant District
Historic Station/Rail Related Resource
Historic Building
Historic Bridge
Historic District/ Resource Group
Historic Linear Resource
Historic Cemetery
Archaeological Site
Archaeological Zone

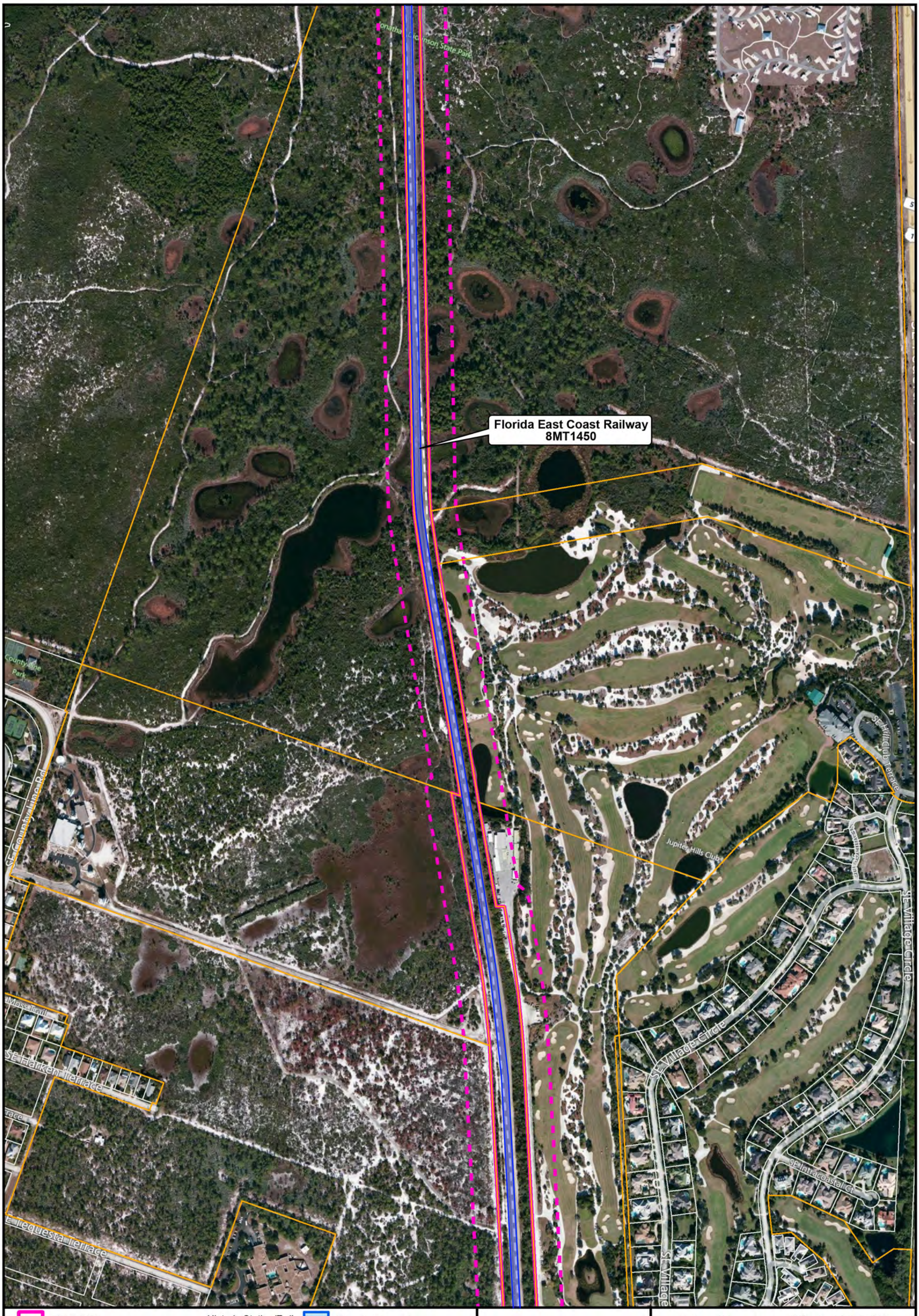
Note: The archaeological and historic APE are limited to the existing FEC ROW. Significant historic resources adjacent to the FEC ROW within a minimum of 150 feet were also identified through background research and reconnaissance survey.

Cultural Resources within the FEC ROW and Significant Historic Resources Adjacent to the FEC ROW within a Minimum of 150 feet

Martin County

0 300 600 Feet

Map 81



FEC ROW
150-Foot Buffer
Adjacent Parcel
Crossing Adjacent to Significant or Considered Significant District
Historic Station/Rail Related Resource
Historic Building
Historic Bridge
Historic District/ Resource Group
Historic Linear Resource
Historic Cemetery
Archaeological Site
Archaeological Zone

Note: The archaeological and historic APE are limited to the existing FEC ROW. Significant historic resources adjacent to the FEC ROW within a minimum of 150 feet were also identified through background research and reconnaissance survey.

Cultural Resources within the FEC ROW and Significant Historic Resources Adjacent to the FEC ROW within a Minimum of 150 feet

Martin County

0 300 600 Feet

Map 82

Palm Beach County
Loxahatchee River
Archaeological Zone

Florida East Coast Railway
8MT1450

Palm Beach County
Coastal Archaeological Zone

Florida East Coast Railway
8PB12102

FEC ROW
150-Foot Buffer
Adjacent Parcel
Crossing Adjacent to Significant or Considered Significant District
Historic Station/Rail Related Resource
Historic Building
Historic Bridge
Historic District/ Resource Group
Historic Linear Resource
Historic Cemetery
Archaeological Site
Archaeological Zone

Note: The archaeological and historic APE are limited to the existing FEC ROW. Significant historic resources adjacent to the FEC ROW within a minimum of 150 feet were also identified through background research and reconnaissance survey.

Cultural Resources within the FEC ROW and Significant Historic Resources Adjacent to the FEC ROW within a Minimum of 150 feet

Martin & Palm Beach Counties

0 300 600 Feet

Map 83

Palm Beach County
Coastal Archaeological Zone

Movable Railway Bridge
over the Loxahatchee River
(8PB16041)

Florida East Coast Railway
8PB12102

Palm Beach County
Loxahatchee River
Archaeological Zone

- FEC ROW
- 150-Foot Buffer
- Adjacent Parcel
- Crossing Adjacent to Significant or Considered Significant District
- Historic Station/Rail Related Resource
- Historic Building
- Historic Bridge
- Historic District/ Resource Group
- Historic Linear Resource
- Historic Cemetery
- Archaeological Site
- Archaeological Zone

Note: The archaeological and historic APE are limited to the existing FEC ROW. Significant historic resources adjacent to the FEC ROW within a minimum of 150 feet were also identified through background research and reconnaissance survey.

Cultural Resources within the FEC ROW and Significant Historic Resources Adjacent to the FEC ROW within a Minimum of 150 feet

Palm Beach County

0 300 600 Feet

Map 84

Florida East Coast Railway
8PB12102

FEC ROW
150-Foot Buffer
Adjacent Parcel
Crossing Adjacent to Significant or Considered Significant District
Historic Station/Rail Related Resource
Historic Building
Historic Bridge
Historic District/ Resource Group
Historic Linear Resource
Historic Cemetery
Archaeological Site
Archaeological Zone

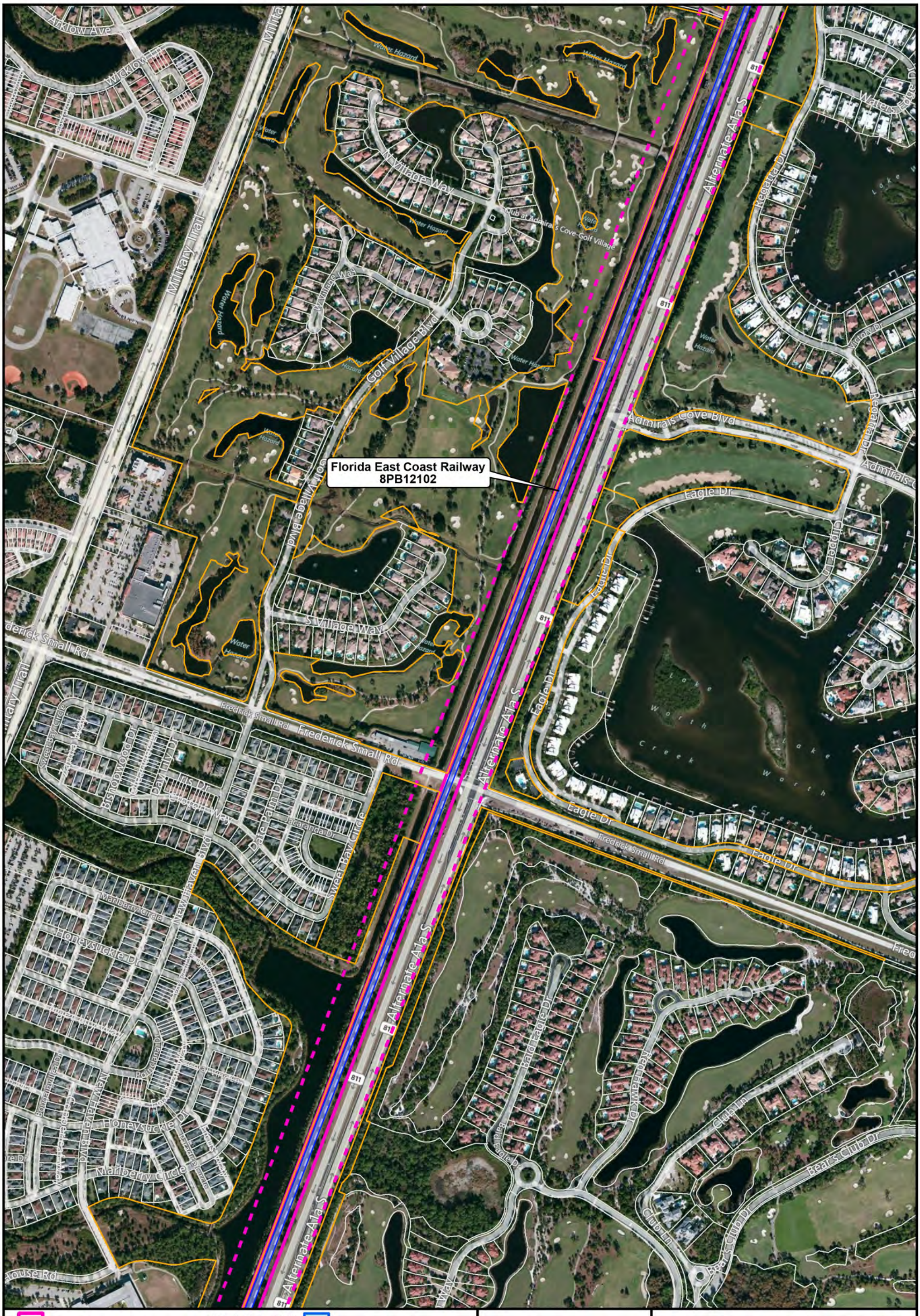
Note: The archaeological and historic APE are limited to the existing FEC ROW. Significant historic resources adjacent to the FEC ROW within a minimum of 150 feet were also identified through background research and reconnaissance survey.

Cultural Resources within the FEC ROW and Significant Historic Resources Adjacent to the FEC ROW within a Minimum of 150 feet

Palm Beach County

Feet
0 300 600

Map 85



FEC ROW

150-Foot Buffer

Adjacent Parcel

Crossing Adjacent to Significant or Considered Significant District

Historic Station/Rail Related Resource

Historic Building

Historic Bridge

Historic District/ Resource Group

Historic Linear Resource

Historic Cemetery

Archaeological Site

Archaeological Zone

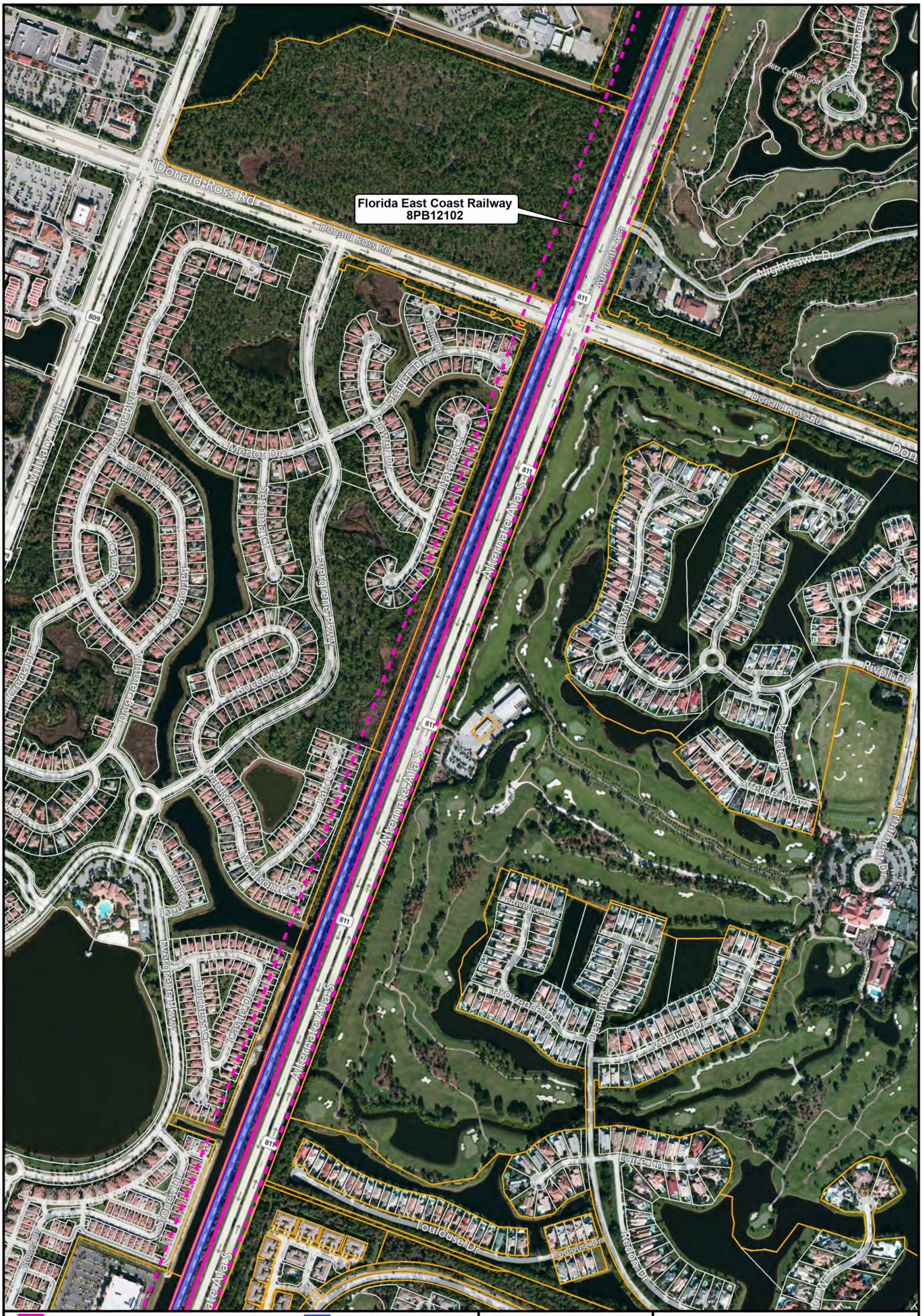
Note: The archaeological and historic APE are limited to the existing FEC ROW. Significant historic resources adjacent to the FEC ROW within a minimum of 150 feet were also identified through background research and reconnaissance survey.

Cultural Resources within the FEC ROW and Significant Historic Resources Adjacent to the FEC ROW within a Minimum of 150 feet

Palm Beach County

0 300 600 Feet

Map 86



FEC ROW

150-Foot Buffer

Adjacent Parcel

Crossing Adjacent to Significant or Considered Significant District

Historic Station/Rail Related Resource

Historic Building

Historic Bridge

Historic District/ Resource Group

Historic Linear Resource

Historic Cemetery

Archaeological Site

Archaeological Zone

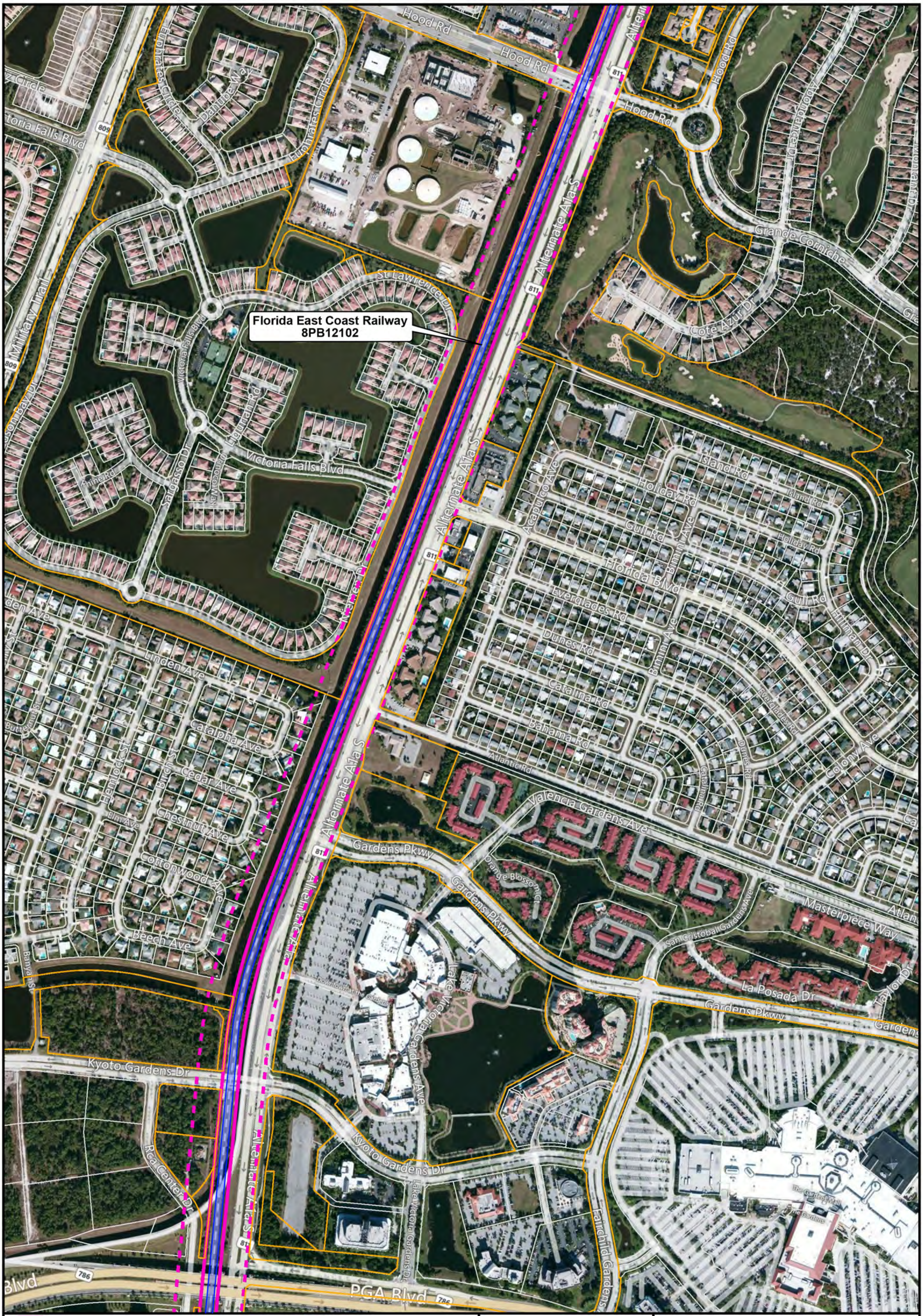
Note: The archaeological and historic APE are limited to the existing FEC ROW. Significant historic resources adjacent to the FEC ROW within a minimum of 150 feet were also identified through background research and reconnaissance survey.

Cultural Resources within the FEC ROW and Significant Historic Resources Adjacent to the FEC ROW within a Minimum of 150 feet

Palm Beach County

0 300 600 Feet

Map 87



FEC ROW
150-Foot Buffer
Adjacent Parcel
Crossing Adjacent to Significant or Considered Significant District
Historic Station/Rail Related Resource
Historic Building
Historic Bridge
Historic District/ Resource Group
Historic Linear Resource
Historic Cemetery
Archaeological Site
Archaeological Zone

Note: The archaeological and historic APE are limited to the existing FEC ROW. Significant historic resources adjacent to the FEC ROW within a minimum of 150 feet were also identified through background research and reconnaissance survey.

Cultural Resources within the FEC ROW and Significant Historic Resources Adjacent to the FEC ROW within a Minimum of 150 feet

Palm Beach County

0 300 600 Feet

Map 88

Florida East Coast Railway
8PB12102

- FEC ROW
- 150-Foot Buffer
- Adjacent Parcel
- Crossing Adjacent to Significant or Considered Significant District
- Historic Station/Rail Related Resource
- Historic Building
- Historic Bridge
- Historic District/ Resource Group
- Historic Linear Resource
- Historic Cemetery
- Archaeological Site
- Archaeological Zone

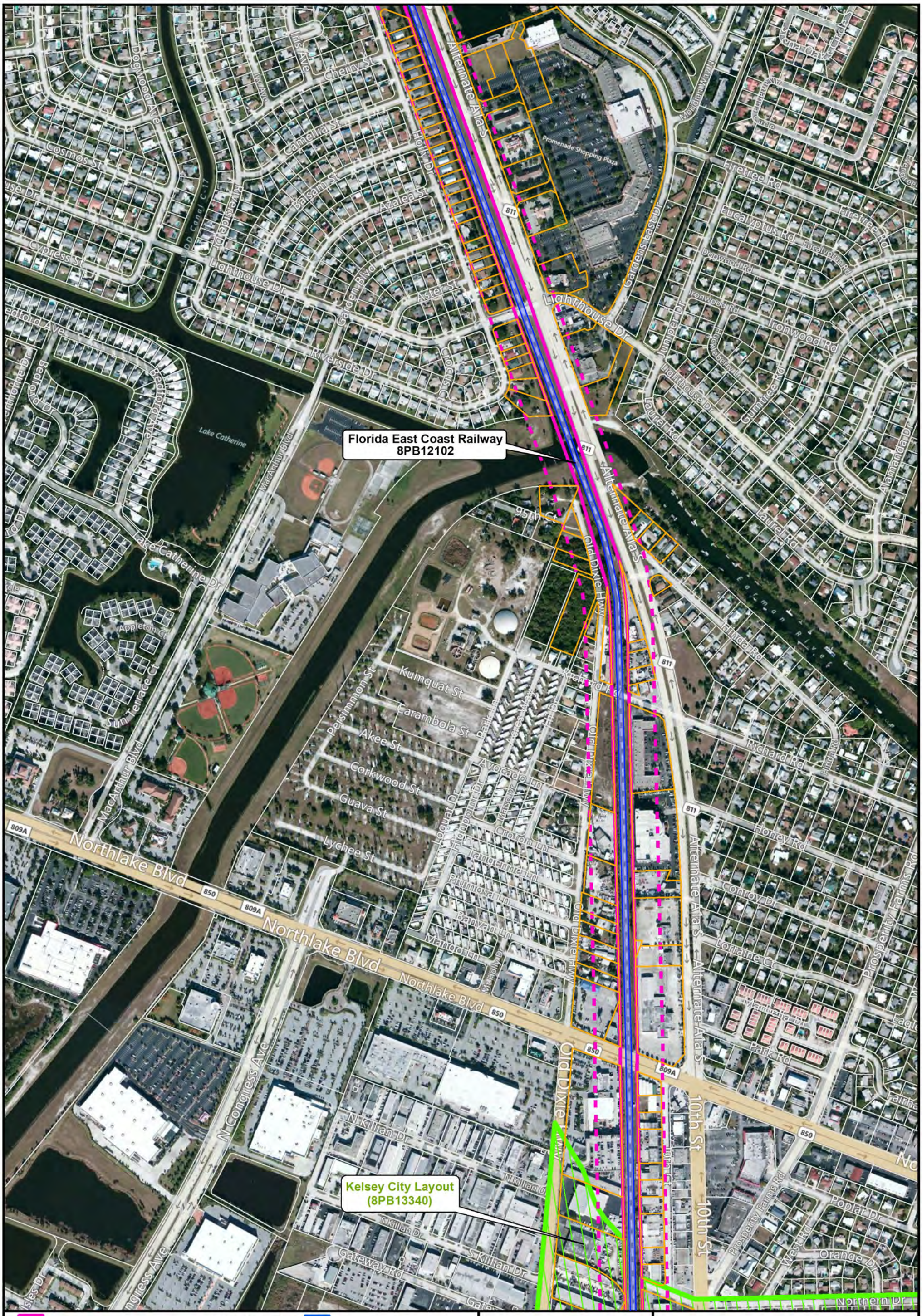
Note: The archaeological and historic APE are limited to the existing FEC ROW. Significant historic resources adjacent to the FEC ROW within a minimum of 150 feet were also identified through background research and reconnaissance survey.

Cultural Resources within the FEC ROW and Significant Historic Resources Adjacent to the FEC ROW within a Minimum of 150 feet

Palm Beach County

0 300 600 Feet

Map 89



Note: The archaeological and historic APE are limited to the existing FEC ROW. Significant historic resources adjacent to the FEC ROW within a minimum of 150 feet were also identified through background research and reconnaissance survey.

Cultural Resources within the FEC ROW and Significant Historic Resources Adjacent to the FEC ROW within a Minimum of 150 feet

Palm Beach County

0 300 600 Feet

Map 90

Kelsey City Layout
(8PB13340)

Old Dixie Highway/Park Avenue
At-Grade Crossing

Silver Beach Road
At-Grade Crossing

FEC ROW
150-Foot Buffer
Adjacent Parcel
Crossing Adjacent to Significant or Considered Significant District
Historic Station/Rail Related Resource
Historic Building
Historic Bridge
Historic District/ Resource Group
Historic Linear Resource
Historic Cemetery
Archaeological Site
Archaeological Zone

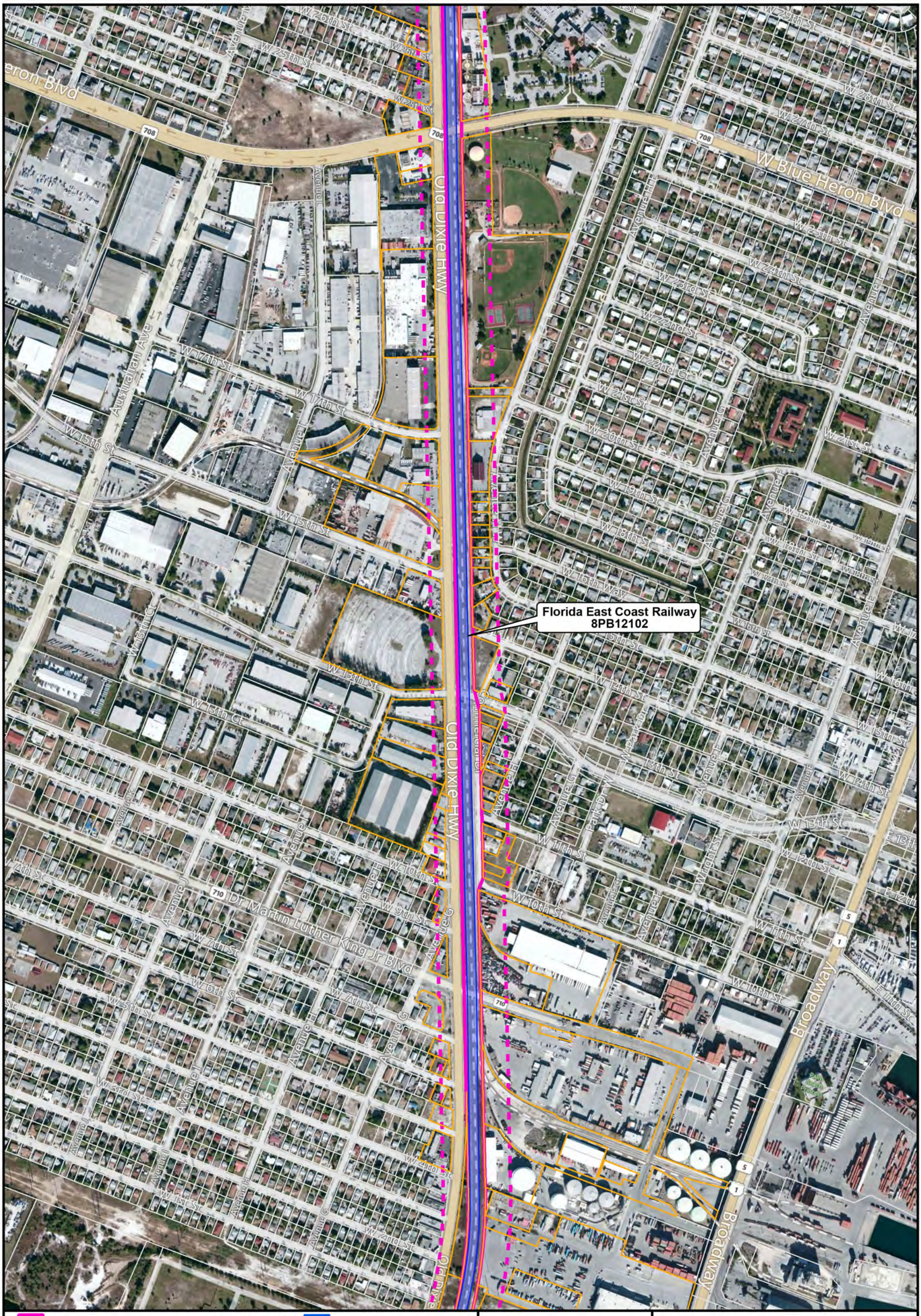
Note: The archaeological and historic APE are limited to the existing FEC ROW. Significant historic resources adjacent to the FEC ROW within a minimum of 150 feet were also identified through background research and reconnaissance survey.

Cultural Resources within the FEC ROW and Significant Historic Resources Adjacent to the FEC ROW within a Minimum of 150 feet

Palm Beach County

0 300 600 Feet

Map 91



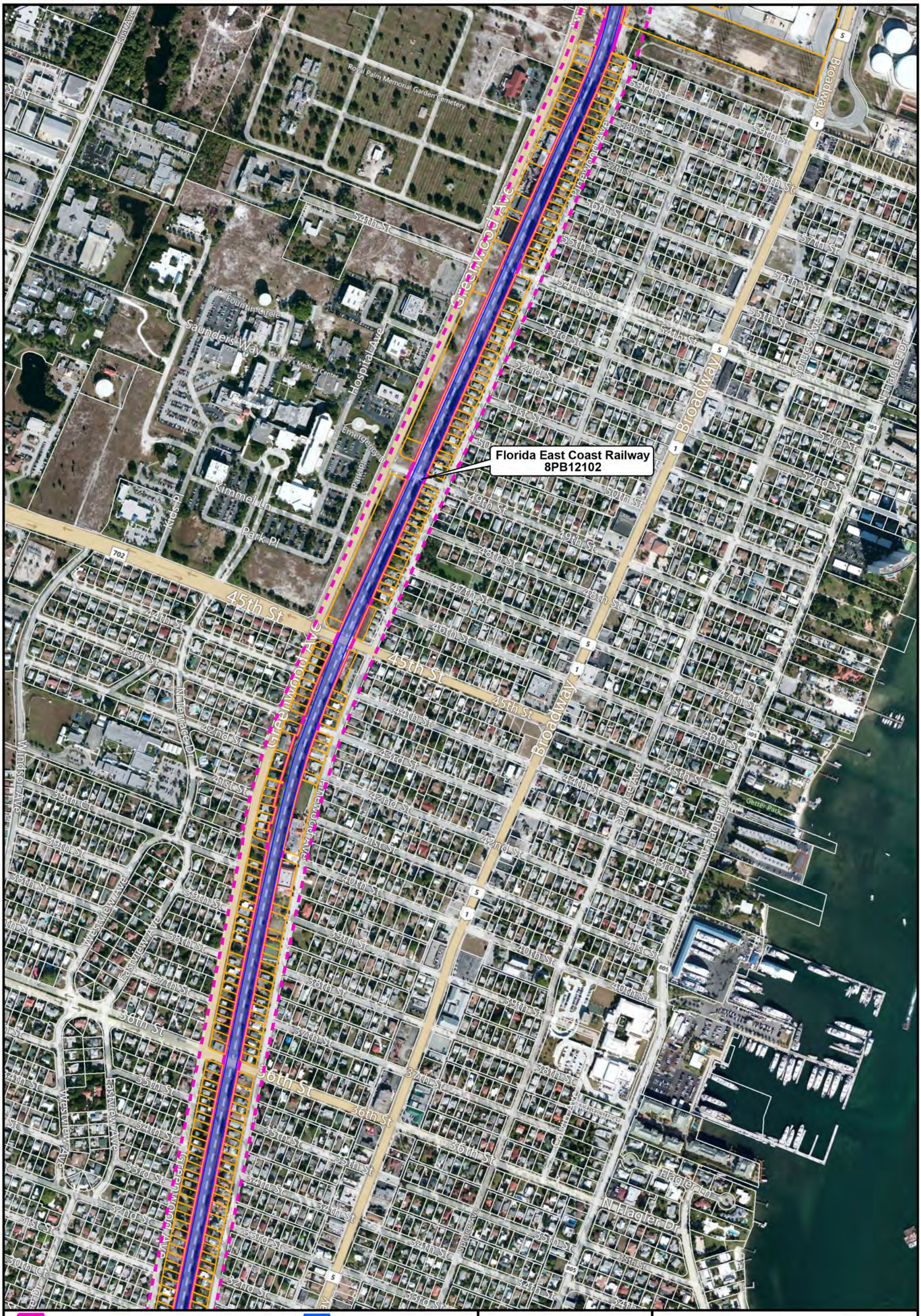
Note: The archaeological and historic APE are limited to the existing FEC ROW. Significant historic resources adjacent to the FEC ROW within a minimum of 150 feet were also identified through background research and reconnaissance survey.

Cultural Resources within the FEC ROW and Significant Historic Resources Adjacent to the FEC ROW within a Minimum of 150 feet

Palm Beach County

0 300 600 Feet

Map 92



FEC ROW

150-Foot Buffer

Adjacent Parcel

Crossing Adjacent to Significant or Considered Significant District

Historic Station/Rail Related Resource

Historic Building

Historic Bridge

Historic District/ Resource Group

Historic Linear Resource

Historic Cemetery

Archaeological Site

Archaeological Zone

Note: The archaeological and historic APE are limited to the existing FEC ROW. Significant historic resources adjacent to the FEC ROW within a minimum of 150 feet were also identified through background research and reconnaissance survey.

Cultural Resources within the FEC ROW and Significant Historic Resources Adjacent to the FEC ROW within a Minimum of 150 feet

Palm Beach County

0 300 600 Feet

Map 93

Evergreen Cemetery
(8PB218)

Florida East Coast Railway
8PB12102

St. John's Baptist Church
2010 A. E. Isaacs Avenue
(8PB6064)

- FEC ROW
- 150-Foot Buffer
- Adjacent Parcel
- Crossing Adjacent to Significant or Considered Significant District
- Historic Station/Rail Related Resource
- Historic Building
- Historic Bridge
- Historic District/ Resource Group
- Historic Linear Resource
- Historic Cemetery
- Archaeological Site
- Archaeological Zone

Note: The archaeological and historic APE are limited to the existing FEC ROW. Significant historic resources adjacent to the FEC ROW within a minimum of 150 feet were also identified through background research and reconnaissance survey.

Cultural Resources within the FEC ROW and Significant Historic Resources Adjacent to the FEC ROW within a Minimum of 150 feet

Palm Beach County

0 300 600 Feet

Map 94

APPENDIX G:

SURVEY LOG SHEETS

Ent D (FMSF only)_____

Survey Log Sheet

Florida Master Site File
Version 4.1 1/07

Survey # (FMSF only) _____

Consult *Guide to the Survey Log Sheet* for detailed instructions.

Identification and Bibliographic Information

Survey Project (name and project phase) CRAR of the AAF Passenger Rail Project from Orlando to West Palm Beach

Report Title (exactly as on title page) Cultural Resource Assessment Report for the All Aboard Florida Passenger Rail Project from Orlando to West Palm Beach

Report Authors (as on title page, last names first) 1. Janus Research 3. _____ 2. _____ 4. _____

Publication Date (year) 2013 **Total Number of Pages in Report** (count text, figures, tables, not site forms) 120

Publication Information (Give series, number in series, publisher and city. For article or chapter, cite page numbers. Use the style of *American Antiquity*.)
Janus Research, 1107 N. Ward Street, Tampa FL 33607

Supervisors of Fieldwork (even if same as author) Names Streelman, Amy and Pepe, James

Affiliation of Fieldworkers: Organization Janus Research City Tampa

Key Words/Phrases (Don't use county name, or common words like *archaeology*, *structure*, *survey, architecture, etc.*)

1. Rail 3. Cocoa 5. Cocoa Beach 7. Airport
2. Orlando 4. West Palm Beach 6. SR 528 8. _____

Survey Sponsors (corporation, government unit, organization or person directly funding fieldwork)

Name AAF - Operations LLC Organization _____

Address/Phone/E-mail 2855 Le Jeune Road, 4th Floor, Coral Gables, Florida 33134

Recorder of Log Sheet Janus Research **Date Log Sheet Completed** 8-30-2013

Is this survey or project a continuation of a previous project? ☒ No ☐ Yes: **Previous survey #s (FMSF only)** _____

Mapping

Counties (List each one in which field survey was done; attach additional sheet if necessary)

1. Orange 3. Indian River 5. Martin
2. Brevard 4. St. Lucie 6. Palm Beach

USGS 1:24,000 Map Names/Year of Latest Revision (attach additional sheet if necessary)

1. Name _____ Year _____ 4. Name _____ Year _____
2. Name _____ Year _____ 5. Name _____ Year _____
3. Name _____ Year _____ 6. Name _____ Year _____

Description of Survey Area

Dates for Fieldwork: Start 6-24-2013 End 8-16-2013 **Total Area Surveyed** (fill in one) _____ hectares 9,144 acres

Number of Distinct Tracts or Areas Surveyed 3

If Corridor (fill in one for each) **Width:** _____ meters _____ feet **Length:** _____ kilometers _____ miles

Survey Log Sheet

Survey #_____

Research and Field Methods

Types of Survey (check all that apply): ☒archaeological ☒architectural ☐historical/archival ☐underwater ☐damage assessment ☐monitoring report ☐other(describe): _____

Scope/Intensity/Procedures Airport Rail Alignment: Desktop analysis and Background Research. East-West Corridor: Pedestrian Survey, Shovel Testing, and Visual Inspection. North-South: Pedestrian Survey and Visual Inspection

Preliminary Methods (check as many as apply to the project as a whole)

☐Florida Archives (Gray Building)	☐library research- *local public*	☒local property or tax records	☒other historic maps
☐Florida Photo Archives (Gray Building)	☐library-special collection - *nonlocal*	☐newspaper files	☒soils maps or data
☒Site File property search	☒Public Lands Survey (maps at DEP)	☒literature search	☒windshield survey
☒Site File survey search	☒local informant(s)	☒Sanborn Insurance maps	☒aerial photography

☒other (describe): Janus Library

Archaeological Methods (check as many as apply to the project as a whole)

☐Check here if **NO** archaeological methods were used.

☐surface collection, controlled	☐shovel test-other screen size	☐block excavation (at least 2x2 m)
☐surface collection, **un**controlled	☐water screen	☐soil resistivity
☒shovel test-1/4"screen	☐posthole tests	☐magnetometer
☐shovel test-1/8" screen	☐auger tests	☐side scan sonar
☐shovel test 1/16"screen	☐coring	☒pedestrian survey
☐shovel test-unscreened	☐test excavation (at least 1x2 m)	☐unknown

☐other (describe): _____

Historical/Architectural Methods (check as many as apply to the project as a whole)

☐Check here if **NO** historical/architectural methods were used.

☐building permits	☐demolition permits	☐neighbor interview	☐subdivision maps
☐commercial permits	☒exposed ground inspected	☐occupant interview	☐tax records
☐interior documentation	☒local property records	☐occupation permits	☐unknown

☒other (describe): Visual inspection

Survey Results (cultural resources recorded)

Site Significance Evaluated? ☒Yes ☐No

Count of Previously Recorded Sites 2 **Count of Newly Recorded Sites** 15

Previously Recorded Site #'s with Site File Update Forms (List site #'s without "8". Attach additional pages if necessary.) IR1049, MT1382

Newly Recorded Site #'s (Are all originals and not updates? List site #'s without "8". Attach additional pages if necessary.) BR3058-BR3062/IR1569, BR3066-BR3068, MT1623-MT1626, PB16041, SL3191-SL3192

Site Forms Used: ☐Site File Paper Form ☒Site File Electronic Recording Form

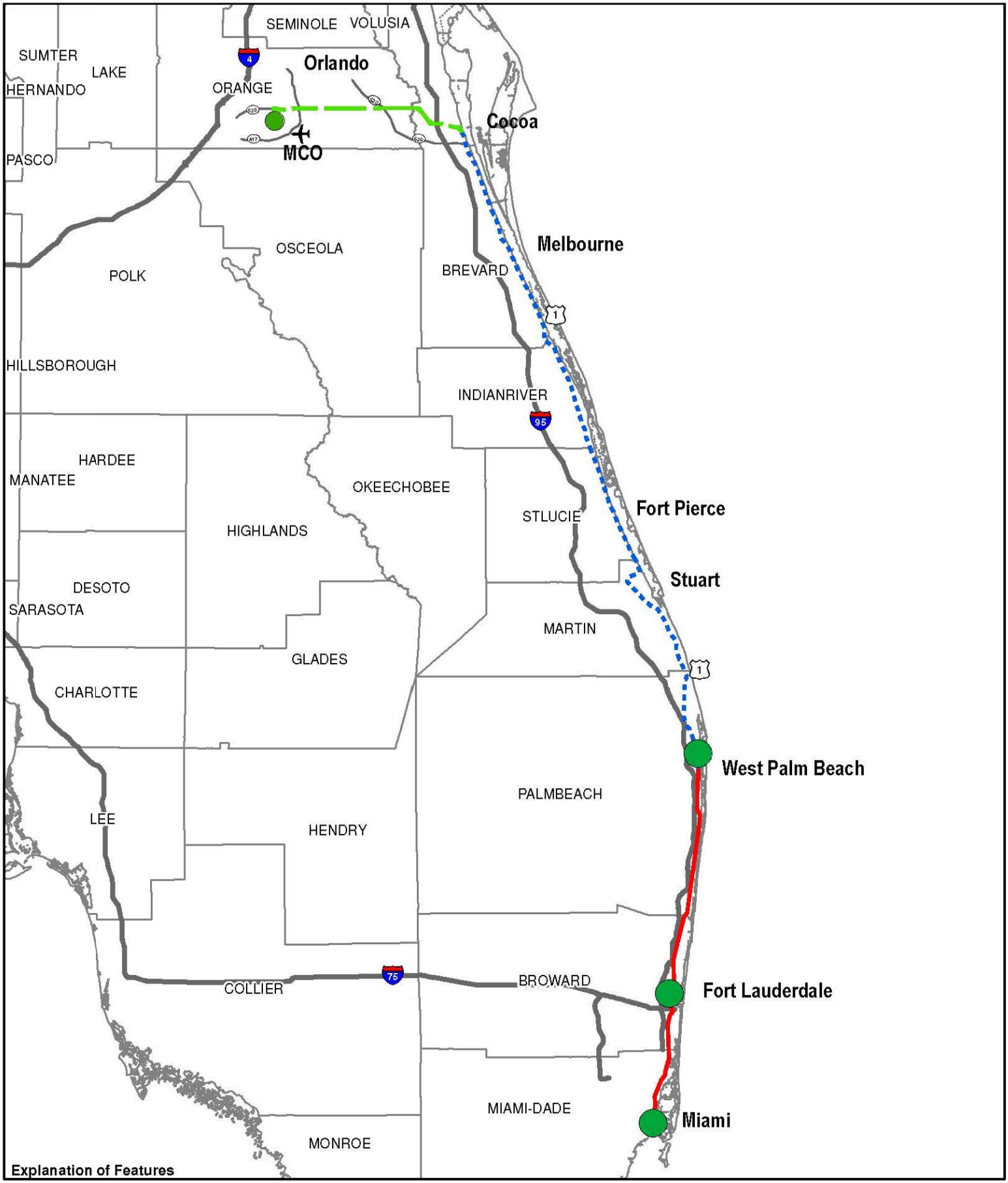
*****REQUIRED: ATTACH PLOT OF SURVEY AREA ON PHOTOCOPY OF USGS 1:24,000 MAP(S)*****

SHPO USE ONLY	SHPO USE ONLY	SHPO USE ONLY

Origin of Report: ☐872 ☐CARL ☐UW ☐1A32 # _____ ☐Academic ☐Contract ☐Avocational ☐Grant Project # _____ ☐Compliance Review: CRAT # _____

Type of Document: ☐Archaeological Survey ☐Historical/Architectural Survey ☐Marine Survey ☐Cell Tower CRAS ☐Monitoring Report ☐Overview ☐Excavation Report ☐Multi-Site Excavation Report ☐Structure Detailed Report ☐Library, Hist. or Archival Doc ☐MPS ☐MRA ☐TG ☐Other: _____

Document Destination: _____ **Plotability:** _____



Proposed Project Location Map

AAF-Passenger Rail Corridor Evaluation

Figure 1-1

APPENDIX H:

PREHISTORIC AND HISTORIC CONTEXTS EXCERPTED FROM PAST CULTURAL RESOURCE REPORTS WITHIN THE PROJECT APE THAT RECEIVED SHPO CONCURRENCE

Prehistoric and Historic Context from the 1998 *CRAS of the GOAA's South Terminal Complex EA in Orange County, Florida*

CULTURAL PREHISTORY

Aboriginal peoples have inhabited Florida for at least 14,000 years. The earliest cultural stages are pan-Florida in extent while later cultures exhibited differing cultural traits in the various archaeological areas of the state. Jerald Milanich (1994; Milanich and Fairbanks 1980) has synthesized the earlier work of John Goggin (1947, 1949, 1952), Irving Rouse (1951), Ripley Bullen (1972), Russo (1988; Russo et al. 1989; Russo and Ste. Claire 1992), Ste. Claire 1990 and others in East and Central Florida. His chronology will be followed in this brief overview. This prehistoric overview will serve as a framework for understanding and evaluating any sites located by the survey.

The South Terminal Complex project area is located in the East and Central archaeological region (Figure 2) as defined by Milanich and Fairbanks (1980:22) and Milanich (1994:xix). The area was occupied prehistorically by aboriginal groups sharing similar customs, traditions and technologies. Although regional variations in cultural practices existed, there are enough similarities between these different groups to enable archaeologists to classify the region as a single area (Russo et al. 1989).

The East and Central archaeological region extends from the St. Marys River on the north to the vicinity of Vero Beach on the Atlantic Coast, and includes the St. Johns River drainage system and most of the coastal lagoon. Although the southern interior boundary is rather vague, recent investigations (Austin 1987, 1992) suggest that it is in the vicinity of Lake Tohopekaliga in Osceola County.

Paleoindian Stage

The earliest stage of prehistoric cultural development, the Paleoindian, dates from the time humans first arrived in Florida until about 7500 B.C. The climate of the region was cooler and drier than at present and the level of the sea was as much as 35 m (115 feet) lower (Milanich and Fairbanks 1980:37). The greatest density of known Paleoindian sites in Florida is associated with rivers in the north-central part of the state, although rising sea levels have probably inundated early coastal sites making their discovery difficult (Rouse 1951:21-30; Scholl et al. 1969; Ruppe 1980).

The prevailing view of Paleoindian existence, based on the uniformity of the known stone tool assemblage and the small size of many of the known sites, is that of a nomadic lifestyle with subsistence activities based on hunting and gathering (Milanich and Fairbanks 1980:35-42). Excavations in Hillsborough County, however, have contributed to the development of increasingly sophisticated models of early hunter-gatherer settlement (e.g., Daniel 1985; Daniel and Wisenbaker 1987; Chance 1983) which take into account the adaptive responses of human populations to both short and long term environmental change. These models suggest that some Paleoindian groups may have practiced a more sedentary lifestyle than had previously been believed (Daniel 1985:264).

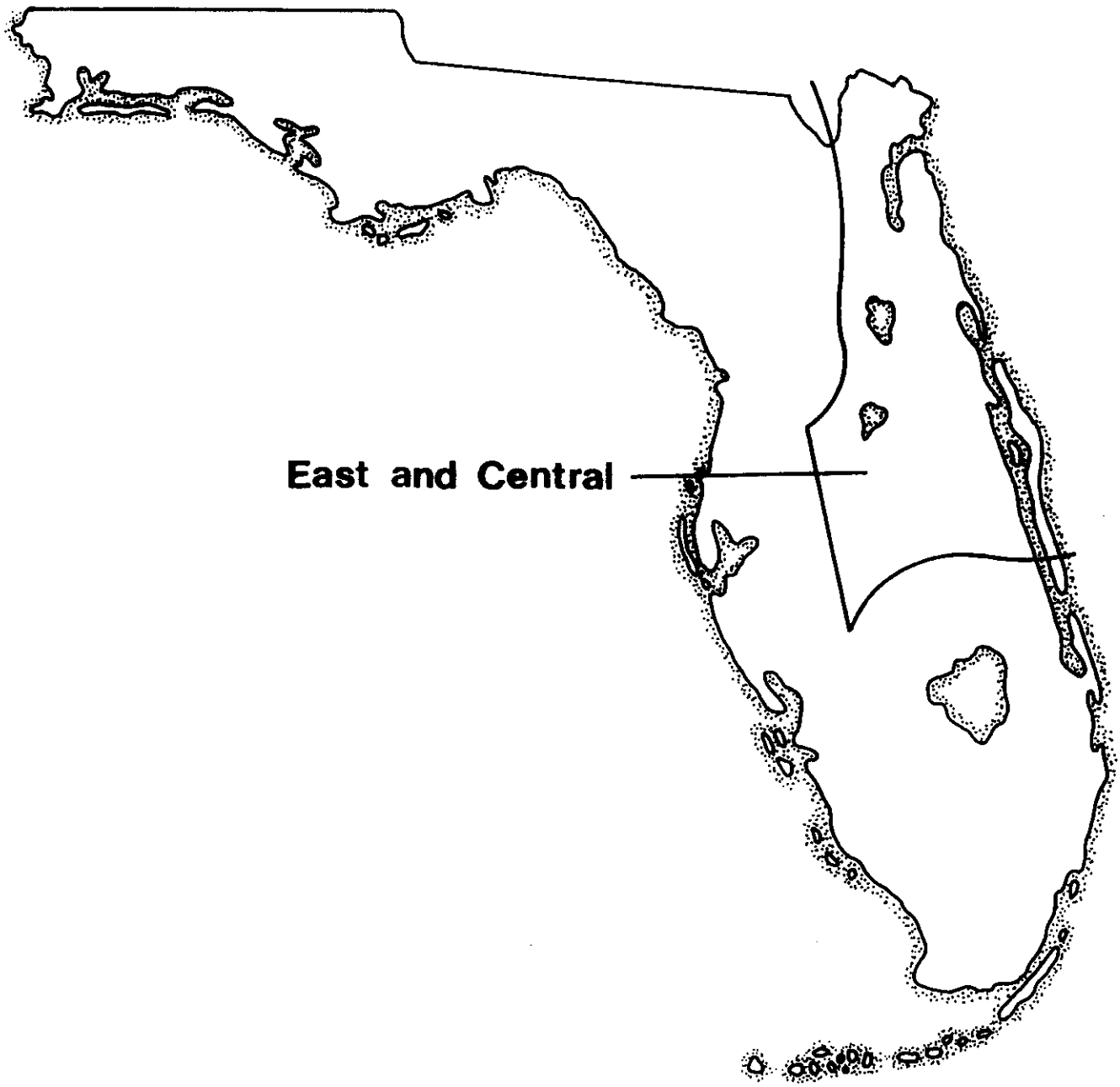


Figure 2: Map of the East and Central Archaeological Region (after Milanich and Fairbanks 1980:22).

JANUS RESEARCH ◊ PIPER ARCHAEOLOGY
Archaeology ◊ History ◊ Architectural History ◊ Public Interpretation
P.O. Box 919, St. Petersburg, Florida 33731

Two controversial early aboriginal sites are located on the coastal strand southeast of the project area, 8IR9 in Vero Beach and 8BR44 in Melbourne. At both sites human remains were reported in association with the bones of extinct Pleistocene animals (Gidley and Loomis 1926; Sellards 1940). This association was disputed by Hrdlicka (1907, 1918) and later by Rouse (1950, 1951:223) who felt the human remains were intrusive into the Pleistocene stratum. More recent examination of the human crania (Stewart in Milanich and Fairbanks 1980:5) and comparisons with those from the Warm Mineral Springs site in Sarasota County seem to support a Paleoindian period date for the Vero and Melbourne finds (Cockrell and Murphy 1978:7-8), although a final determination has not, as yet, been made.

One Paleoindian site has been excavated in the region. A Paleoindian tool assemblage including lanceolate-shaped projectile points has been recovered from the Lake Hell 'n Blazes site located near the headwaters of the St. Johns River (Edwards 1954). Isolated finds of lanceolate-shaped projectile points have been reported in the region including a Suwannee projectile point recovered during dredging of Soldiers Creek in Seminole County (Stewart and Dreves 1980).

The relative lack of Paleoindian sites in east central Florida has been linked to environmental constraints imposed by a lower sea level and drier climate, or to subsequent rising sea levels that may have inundated or destroyed early coastal sites.

Archaic Stage

The Archaic stage of cultural development was characterized by a shift in adaptive strategies stimulated by the onset of the Holocene and the establishment of increasingly modern climate and biota. It is generally believed to have begun in Florida around 7500 B.C. (Milanich and Fairbanks 1980:48). This stage is further characterized by an efficient, seasonal exploitation of a wider range of food resources including deer and other small game, hardwood nuts, and mollusks, and a larger but less carefully worked stone tool assemblage. Archaic Native American groups are thought to have used a more restricted territory than their Paleoindian predecessors, with some groups leading at least a semi-sedentary existence. Archaic site types include base camps, hunting camps, butchering sites, quarries, and cemeteries. An Early Archaic component is present at the Zellwood site on the shore of Lake Apopka (Dreves 1974) and at the Nalcrest site at Lake Weohyakapka in Polk County (Bullen and Beilman 1973).

An important Early Archaic site in east central Florida is the Windover site near Titusville in Brevard County. This site consists of a prehistoric cemetery in a small pond and is the most thoroughly excavated early site in east central Florida. In addition to well preserved human remains, normally perishable items of bone, wood, shell and fabric were also preserved. Radiocarbon dates indicate that the interments were made roughly 8000 years ago, 6000 B.C. (Doran and Dickel 1988).

Mount Taylor Phase

By 4000 B.C. Archaic hunter/gatherers were spending much of the year in villages along the St. Johns River and its tributaries. This phase of Archaic development, known as the Mount Taylor phase after the type site in Volusia County (Goggin 1952), is characterized by the dietary importance of freshwater snails (Cumbaa 1976), and the use of stemmed projectile points with triangular blades, as well as bone points and tools. Excavations at the Tick Island site, also in Volusia County, revealed a mass burial in a midden perhaps associated with a charnel house, an early instance of such a burial pattern (Jahn and Bullen 1978). The Hunter's Creek site in Orange County is an important Archaic period site located east of the project area (Stewart 1987).

Recent surveys and excavations suggest that Middle Archaic peoples were also exploiting coastal resources to a greater degree than previously believed (Ste. Claire 1989). The Gautier site, a village and cemetery complex near Cocoa Beach in Brevard County, probably represents a long term occupation during the Middle and Late Archaic periods (Carr 1981; Sigler-Eisenberg 1984).

Orange Phase

The introduction of a crude fiber-tempered pottery into the artifact assemblage of the Archaic aboriginals marks the beginning of the Orange phase around 2000 B.C. The tool assemblage of the Orange phase resembles that of the Mount Taylor phase with the addition of pottery and evidence of basketry and matting as seen in the impressions on clay pot bottoms (Milanich and Fairbanks 1980:155).

The basic hunting-foraging subsistence pattern of the Archaic stage continued, with a shift to marine shellfish occurring as the snail beds were gradually depleted. By Orange III times, ca. 1450-1250 B.C., occupation of the Atlantic Coastal strand had increased significantly. This shift in prehistoric settlement and subsistence strategies is documented at the Summer Haven site in St. Johns County and the Cotten site in Volusia County (Bullen and Bullen 1961; Bullen 1972). Other sites containing an Orange component include the Duda Ranch Mound, Bluffton and Sunday Bluff sites along the St. Johns River (Knoderer 1972; Bullen 1955, 1969, 1972), and the Alexander Springs Midden, the Silver Glen Springs site and the Aston Midden in the interior (FMSF).

Woodland Stage

During the late Orange phase, also known as the Florida Transitional Period (1200-500 B.C.), changes in pottery and technology occurred in Florida which mark the beginning of the Woodland Stage. A decline in the use of fiber (Spanish moss) and an increase in the use of sand as a tempering agent in ceramics occurred during this period. The temperless St. Johns ceramic series also begins to appear at this time, and three different projectile point styles, basally-notched, corner-notched, and stemmed, all occur in relatively contemporaneous contexts. This profusion of ceramic and tool traditions is indicative of population movement and social interaction between

culture areas. Other changes include the possible use of domesticated plants, such as maize and some gourds (Milanich and Fairbanks 1980:155).

St. Johns Culture Sequence

Milanich and Fairbanks (1980:20) state that "The Formative Stage, denoting a beginning of formal, settled communities, with the gradual development of more complex forms of political and religious community organization, is marked by a great deal more regional diversity than the earlier stages." This regional diversity, due primarily to local adaptation to varied ecological conditions within the state, has traditionally been described in terms of cultural periods based on variations in ceramic types. The ceramic tradition for Central and East Florida is known as the St. Johns cultural tradition and is divided into the following periods: St. Johns I (500 B.C.-A.D.100), St. Johns Ia (A.D. 100-500), St. Johns Ib (A.D.500-800), St. Johns IIa (A.D. 800-1300), St. Johns IIb (A.D. 1300-1513), and St. Johns IIc (A.D. 1513-1565).

It has been assumed that the basic settlement and subsistence pattern of seasonal movement between the coast and river valley established during the Orange phase continued during the early St. Johns period. Oysters, thought to be newly abundant in the coastal lagoons because of rising sea levels, joined coquinas as a major dietary staple during St. Johns I times. However, recent excavations at the Edgewater Landings sites by Russo et al. (1989) suggest that human groups during the St. Johns period may have inhabited the coast on a more permanent basis. Limited horticulture is also assumed (Milanich and Fairbanks 1980:157-160; Martinez 1977:15), but as Russo (1989:109) notes, there is no convincing evidence for prehistoric horticulture in east central Florida despite concerted attempts to look for it.

Low burial mounds appear for the first time during St. Johns I period. The pottery is the temperless St. Johns ware, both plain and incised, constructed by the coil method. The presence of ceramics diagnostic of the Deptford culture indicates interaction with contemporaneous groups living on the west coast and along the southern Georgia coast.

The St. Johns Ia period is marked by the appearance of Hopewellian-Yent objects in burial mounds. St. Johns plain and Dunns Creek Red are common pottery types with Swift Creek ceramic attributes replacing Deptford ones toward the end of the period. Excavations at the Ross Hammock mound in Volusia County provided information on mound construction and burial practices (Bullen et al. 1967). Interaction with Weeden Island cultures to the northwest during the St. Johns Ib period is apparent from the occurrence of Weeden Island pottery in burial mounds. Village pottery appears to be limited to St. Johns plain ware, although few village sites have been excavated.

The diagnostic marker for the St. Johns IIa period is St. Johns check-stamped pottery. Burial mounds are common and the most extensive occupation of the coastal lagoons occurred during this time. Continued interaction with the Weeden Island cultures is evidenced by late Weeden Island pottery types and/or copies recovered from some mounds (Rouse 1951:254; Milanich and Fairbanks 1980:148, 159). Excavated sites of this period include the Walker Point Mound in

Nassau County (Hemmings and Deagan 1973) and the Grant Mound (Benton 1981). The latter site has added significantly to our knowledge of burial ceremonialism and village life during this time.

St. Johns IIb, the late prehistoric period, is characterized by the appearance of some southeastern Mississippian traits, presumably resulting from socio-religious interaction with the Fort Walton and Safety Harbor cultures of Florida. Large ceremonial sites, such as the Mt. Royal, Shields and Thursby mounds, located along the St. Johns River were excavated by C.B. Moore (1894a, 1894b) in the 1890s and subsequently interpreted by Goggin (1952). Habitation sites dating to this period have been reported near Lake Mizell (Swindell et al. 1977). The use of St. Johns check-stamped pottery continued with trade wares and Southern Cult objects occurring in mounds.

St. Johns IIc is the designation for the contact or protohistoric period which is marked by the introduction of European artifacts in some of the mounds. Ethno-historic accounts describe the historic tribes who lived in the area as the Acuera of the Eastern Timucua (Deagan 1978). Hunting, gathering and shellfish collecting continued as the primary subsistence mode supplemented by the cultivation of corn, beans, tobacco and other crops. Villages were located near freshwater streams or lakes and were ruled over by a chief. Research has revealed only one mound used by the Acuera, the Fort Mason Mound on the Oklawaha River, which contains European trade goods in association with the burials (Moore 1896; Deagan 1978).

Protohistoric Stage

The arrival of the Spanish during the early 1500s initiated a period of profound social and cultural upheaval among the indigenous aboriginal cultures inhabiting the state. Many traditional ways of life were destroyed or abandoned, while the remaining cultures were modified by the acquisition of Spanish traits and adaptation to the presence of a new and dominant culture.

Three Native American ethic groups were known to inhabit east central Florida at the time of Spanish contact: the Ais, the Mayaca, and the Jororo. The Ais lived along the east coast and were closely involved with the Spanish. They inhabited the coastal strand and Indian River areas at this time. They apparently mixed indigenous hunting/gathering/fishing economy with the salvaging of Spanish shipwrecks. The Mayaca lived along the St. Johns River, and the Jororo lived further inland around what is now western Orange, eastern Polk, and northern Highlands counties (Milanich 1995:64-65). The Jororo would have been the last indigenous group to inhabit the project vicinity.

The Spanish established three missions in Jororo territory during the late seventeenth century. Missions were established at the villages of Jororo, Atissimi, and Atoyquime. The Spanish describe Jororo territory as containing a large number of lakes and lakes containing islands on which the Jororo apparently lived (Milanich 1995:68). The Spanish mission system in Jororo territory collapsed around 1696 when the Jororo rebelled, killing the priest at Atoyquime, and several Native Americans who had assisted him.

By the early eighteenth century, groups of Creek Native Americans who came to be known as Seminoles moved into Florida to escape the political and population pressures of the expanding American frontier. It is suspected that the village site occupied by the Seminole leader Osceola and his followers in 1836 was recently located in Citrus County near the east side of Tsala Apopka Lake. Seminole artifacts were also recovered from the Mizell site (8OR14) near Lake Mizell and the South Indian Fields (8BR23) in Brevard County.

HISTORICAL DOCUMENTARY REVIEW

The intent of this historical documentary review is to identify the possible locations of any historic sites within, or adjacent to, the South Terminal Complex project area and to determine the potential historical significance of any such sites. Early settlements during the Spanish and British Periods focused in the northern half of the Florida peninsula. The area which today comprises Orange County was not settled until relatively late in the nineteenth century.

Throughout the first half of the nineteenth century this area was primarily occupied by various bands of a Native American group known to Euro-Americans as Seminoles. The Seminoles, originally part of the Creek Confederacy, moved from Georgia, Alabama, and surrounding areas into Florida during the eighteenth century, filling a void left by a decimated aboriginal population (Covington 1993:3-27). It was not until after the Seminole Wars and the Seminole's retreat to the Everglades that more cattle ranchers and settlers began to come into the area.

The GOAA South Terminal Complex EA project areas were contained within the boundaries of the Seminole reservation as established by the Treaty of Moultrie Creek in 1823 (Mahon 1967:Rear fold-out map). This treaty restricted the Seminoles to roughly four million acres in the middle of Florida, running south from Micanopy to just north of the Peace River (Mahon 1967:50). The Treaty of Moultrie Creek was unpopular with the Seminoles, many of whom felt that the land within the new reservation was not well suited for growing crops. The treaty marked the beginning of years of starvation and conflicts with settlers.

In 1832 the U.S. Government decided that the best solution to the "Seminole problem" would be to deport the Native Americans from Florida entirely. The Treaty of Paynes Landing (1832) and Treaty of Fort Gibson (1833) were created to achieve that end. Both treaties were extremely unpopular with the Seminoles and led to increased resentment and outbreaks of hostility which finally culminated in the Second Seminole War in 1835 (Mahon 1967:75-76, 82-83).

During the Second Seminole War the area around Lake Tohopekaliga, south of the project area, was a Seminole stronghold. They kept their cattle in the woods around the lake and retreated into the cypress swamp west of the lake at the approach of soldiers (Mahon 1967; Sprague 1964; Moore-Willson 1935). Tohopekaliga means "Fort Site" and the lake was so named because the islands within the lake housed the forts and stockades of the Seminoles (Moore-Willson 1935:29). Sprague (1964:258) reports that Coacoochee, or Wildcat, at one time resided on an island within the lake.

In January 1837, General Jesup's men encountered the Seminoles near the "Great Cypress Swamp." The soldiers drove the Seminoles into the swamp, across the "Hatcheelustee" and into even more dense swamp (Sprague 1964:172). On the 28th of January the army "moved forward and occupied a strong position on Tohope-ka-liga Lake, within a few miles of the point at which

the Cypress Swamp approaches it, where several hundred head of cattle were taken" (Sprague 1964:172). Hetherington (1980:3), citing Major Edward Keenan, a "noted authority on the Seminole Wars," believes that General Jesup's base camp was located in the vicinity of the present-day Kissimmee Airport. The "Great Cypress Swamp" and "Hatcheelustee Creek" referred to by Sprague (1964) are now called Reedy Creek Swamp and Reedy Creek (Map 1839; Mahon 1967: Rear fold out map; Hetherington 1980:3).

The Second Seminole War had a deleterious effect on new settlement in Florida, especially in areas such as Kissimmee where the Seminoles were entrenched. To encourage settlement in the middle portion of the territory after the war, the Armed Occupation Act was passed in 1842. This Act made available for homesteading 200,000 acres outside the already developed areas south of Gainesville to the Peace River. Coastal lands and areas within a two mile radius of forts were excluded. Any head of a family or single man over eighteen able to bear arms was eligible to receive a homestead of 160 acres if he agreed to cultivate at least five acres of land, build a dwelling and live on the property for five years (Tebeau 1971:149). Later, the Homestead Acts of 1866 and 1876 were passed as a further incentive to settlers. The 1866 Act gave newly-freed African-Americans and loyal Anglo-Americans the opportunity to receive 80 acre tracts in Florida and the other four public land states. Former Confederates, however, were not eligible to receive homesteads until the Act of 1876, when for the next 12 years the same lands were open to unrestricted sale (Tebeau 1971:266, 294).

During the 1850s settlers in central and southern Florida were plagued with periodic attacks by some of the remaining Seminoles. These outbreaks of hostility forced many of the new residents to leave their farms and dissuaded others from establishing homesteads. By 1858 the Seminoles were completely driven out of central Florida and settlers began to emigrate to the area in appreciable numbers. Steamboats flourished along the St. Johns and a viable trade network was established. The site of old Fort Mellon became a trading post named Mellonville (Federal Writer's Project 1984:360).

All of the sections which contain the project area were purchased from the State of Florida by private individuals, railroad concerns or investment companies between 1873 and 1953. The following lists the apportionment of land within the survey tract (FDEP, Tract Books, n.d.):

Township 24 South, Range 30 East

Section 8:		
The South Florida Railroad Company	Entire Section	4 August 1882
Section 9:		
Hamilton Disston	Entire section	6 October 1881

Section 10:		
The South Florida Railroad Company	Entire Section	4 August 1882
Section 11:		
Hamilton Disston	NE¼ of NE¼, S½ of NE¼, NW¼ of NW¼, S½ of NW¼, S½	6 October 1881
John Sullivant	NW¼ of NE¼	16 June 1883
Joe Kallahan, A.W. Jones, Harry W. (?)	NE¼ of NW¼	18 February 1953
Section 14:		
Hamilton Disston	E½	6 October 1881
The South Florida Railroad Company	W½	4 August 1882
Section 15:		
Hamilton Disston	N½, N½ of SE¼, SE¼ of SE¼, N½ of SW¼, SW¼ of SW¼	6 October 1881
Henry M. Sullivan	SW¼ of SE¼	22 November 1881
	SE¼ of SW¼	15 October 1882
Section 16:		
Colony and Drew	NE¼, NW¼ of NW¼, E½ of SE¼, SW¼ of SE¼, W½ of SW¼	30 December 1903
	E½ of NW¼, SW¼ of NW¼, NW¼ of SE¼, E½ of SW¼	9 December 1902
Section 17:		
Hamilton Disston	N½, N½ of SE¼, W½ of SW¼	6 October 1881
Nancy P. Locke [Lock]	SE¼ of SE¼	15 October 1882
Florida Land and Improvement Company	SW¼ of SE¼, SE¼ of SW¼	8 December 1883
Mary Ann Newton	NE¼ of SW¼	10 October 1876
Section 20:		
The South Florida Railroad Company	E½ of NE¼, SW¼ of NE¼ E½ of NW¼, NW¼ of NW¼, S½	4 August 1882
John E. Storey	NW¼ of NE¼	11 May 1881
Sarah E. Timer	SW¼ of NW¼	6 July 1881
Section 21:		
Hamilton Disston	N½ of NE¼, NW¼ of S½	6 October 1881
Samuel Sullivan	SE¼ of NE¼	26 October 1881
J.T. Hendricks	SW¼ of NE¼	6 August 1909
Section 22:		
The South Florida Railroad Company	E½ of NE¼, NW¼ of NE¼, W½, SE¼	4 August 1882
John A. Hall	SW¼ of NE¼	7 August 1873

Hamilton Disston, the son of a wealthy Philadelphia industrialist, contracted with the State of Florida in two large land deals - the Disston Drainage Contract and the Disston Land Purchase. The Drainage Contract was an agreement between Disston and the State in which Disston and his associates agreed to drain and reclaim all overflow lands south of Township 23 (later changed to Township 24) and east of the Peace River in exchange for one-half the acreage that could be reclaimed and made fit for cultivation. A contract was signed on March 10th, 1881. Disston and his associates formed a company called the Atlantic and Gulf Coast Canal and Okeechobee Land Company (Davis 1938:205).

Once 200,000 acres had been reclaimed, Disston was to receive the alternate sections of the reclaimed land. Deeds were to be issued as the work progressed. During 1881 and 1882, new channels were dug between East Lake Tohopekaliga, Lake Tohopekaliga, Cypress Lake and Lake Kissimmee (Tebeau 1971:288). Disston and his associates received 1,652,711 acres of land under the Drainage Contract, although they probably never permanently drained more than 50,000 acres (Tebeau 1971:280).

The Florida Land and Improvement Company was a holding company used by Hamilton Disston, and later by his associates, for land transfers under the Land Purchase. The Disston Land Purchase was an agreement between Disston and the State in which Disston agreed to purchase Internal Improvement Fund lands at twenty-five cents an acre to satisfy the indebtedness of the fund. A contract was signed on June 1st, 1881 for the sale of 4,000,000 acres for the sum of one million dollars, which was the estimated debt owed by the Improvement Fund. Disston was allowed to select tracts of land in lots of 10,000 acres, up to 3,500,000 acres; the remainder was selected in tracts of 640 acres (Davis 1938:206-207). Before he could fulfill his obligation, Disston sold half of this contract to a British concern, the British Florida Land and Mortgage Company, headed by Sir Edward Reed (Tischendorf 1954:123). Two years lapsed between the signing of Disston's original contract and the title transfers (19 December 1883) to allow squatters to acquire the land on which they had settled for $1.25 per acre (Tebeau 1971:278).

In the winter of 1894-1895, a "Great Freeze" devastated many citrus crops causing many settlers to return to the north. Those that chose to stay replanted their groves and continued to slowly regain momentum in the citrus industry. After the turn-of-the-century, the development of the Florida Citrus Exchange and local exchanges in towns such as Ocoee, Apopka, and Winter Garden, helped to bolster citrus sales. Numerous citrus and vegetable packing houses dotted the area around these communities.

A study of pertinent historic sources indicates that events concerning the Second Seminole War, the Armed Occupation Act of 1842, and early agriculture, cattle ranching, naval stores, and timber industries occurred within or near the South Terminal Complex project area. However, no specific events are known to have taken place within, or adjacent to, the project area. A historic trail ran through portions of the project area within Sections 9, 16, and 21 (FDEP plat map 1848). This trail ran roughly north-south between Boggy Creek Swamp and Mare Prairie Slough. As a result,

the potential for late nineteenth and early twentieth century homesteads to be found within the project area was considered moderate.

The South Terminal Complex project area lies near Orlando, an area of considerable growth. Consequently, the dense areas of development from the 1920s are not situated within or adjacent to the project area. However, the probability for Boom Times-era housing in the rural landscape was considered to be high given the tremendous influx of settlers during this time period. The area included in the South terminal Complex project area continued to remain rural throughout much of the modern era. Although the potential for resources dating from the Depression era was considered low, buildings constructed during the mid-1930s through 1940s were considered the most likely to have survived.

Prehistoric and Historic Context from the 2005 *CRAS for the SR 528 PD&E Study from SR 520 to the Port Canaveral Terminal B Interchange, Orange and Brevard Counties*

PRECONTACT OVERVIEW

Native peoples have inhabited Florida for at least 14,000 years. The earliest cultural stages are pan-Florida in extent, while later cultures exhibited unique cultural traits. Jerald Milanich and Charles Fairbanks (1980) synthesized the earlier work of John Goggin (1947, 1949, 1952), Irving Rouse (1951), Ripley Bullen (1972), and others for central Florida. Recently, Milanich (1994) updated and revised much of the work he and Fairbanks presented earlier.

The project area is located in the East and Central cultural region, as defined by Milanich (1994), which is composed of the lower and central portions of the St. Johns River, its tributaries, adjacent portions of the coastal barrier-salt marsh-lagoon system, and the Central Florida Lake District (Figure 3). It extends from the St. Marys River on the north to the vicinity of Vero Beach on the Atlantic Coast, and west into Marion, Sumter and Polk counties (Milanich 1994:243)

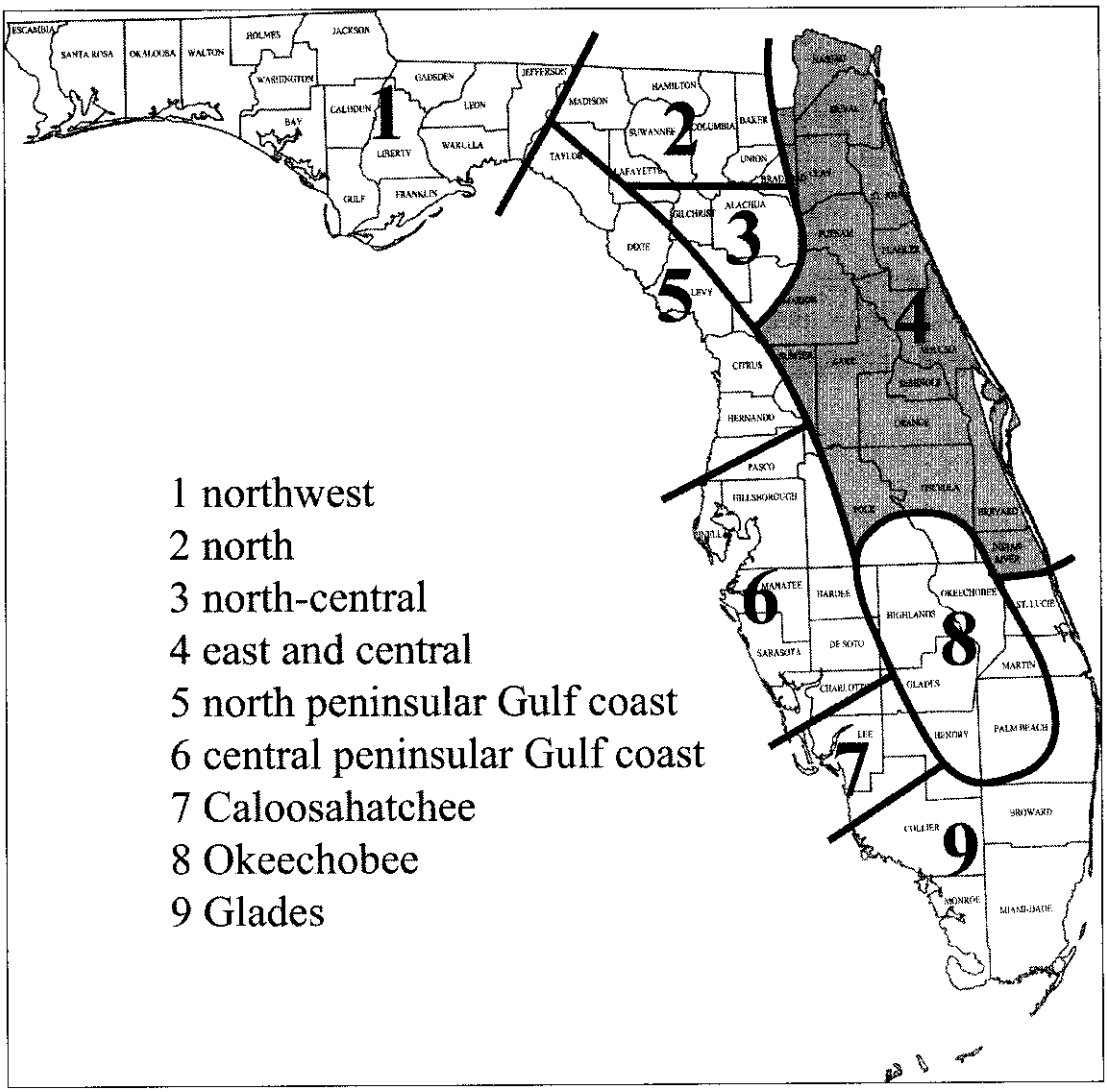


Figure 3: East and Central Cultural Region

Paleoindian Period (12,000–7500 BC)

The earliest period of precontact cultural development dates from the time people first arrived in Florida. The greatest density of known Paleoindian sites is associated with the rivers of northern and north-central Florida where distinctive lanceolate projectile points and bone pins have been found in abundance in and along the Santa Fe, Silver, and Oklawaha Rivers (Dunbar and Waller 1983). The majority of these have been found at shallow fords and river crossings where the Native Americans presumably ambushed Pleistocene mammals. The bones of extinct species such as mammoth, mastodon, and sloth are commonly found preserved in the highly mineralized waters of the area's springs and rivers. Despite early claims to the contrary, present evidence strongly supports the contemporaneity of Paleoindians and these extinct mammals.

The climate of Florida during the late Pleistocene was cooler and drier than at present, and the level of the sea was as much as 160 ft lower (Milanich 1994:38–41). Rising sea levels are assumed to have inundated many coastal sites dating to the Paleoindian and Early Archaic periods (e.g., Ruppe 1980; Goodyear and Warren 1972; Goodyear et al. 1980; Dunbar et al. 1988). It is difficult to determine the dependence of Paleoindian groups on estuarine and littoral resources because little is known of these submerged archaeological sites.

The prevailing view of the Paleoindian culture, a view based on the uniformity of the known tool assemblage and the small size of most of the known sites, is that of a nomadic hunting and gathering existence, in which now-extinct Pleistocene megafauna were exploited. Settlement patterns were restricted by availability of fresh water and access to high-quality stone from which the specialized Paleoindian tool assemblages were made. Waller and Dunbar (1977) and Dunbar and Waller (1983), from their studies of the distribution of known Paleoindian sites and artifact occurrences, have shown that most sites of this time period are found near karst sinkholes or spring caverns. This suggests a somewhat more restricted settlement pattern than postulated for other Paleoindian groups in eastern North America. Paleoindian settlement appears to have been "tethered" to sources of fresh water such as rivers and springs (Daniel 1985:264; Daniel and Wisenbaker 1987:169) and to cryptocrystalline lithic sources (Goodyear 1979; Goodyear et al. 1983).

Excavations in Hillsborough County have contributed to the development of increasingly sophisticated models of early hunter-gatherer settlement (e.g., Daniel 1985; Chance 1983a), which take into account the adaptive responses of human populations to both short and long-term environmental change. These models suggest that some Paleoindian groups may have practiced a more sedentary lifestyle than previously believed (Daniel and Wisenbaker 1987). For instance, evidence from the Harney Flats site in the Hillsborough River drainage basin indicates that Suwannee points were being manufactured from locally available materials (Daniel and Wisenbaker 1987). Although they noted that this was contrary to Gardner's (1977) argument that the availability and location of fine-grade cryptocrystalline materials dictated Paleoindian settlement, their results suggested that

Paleoindian peoples, much like those of later cultures, moved about within defined, restricted territories.

The majority of Paleoindian sites in Florida consist of surface finds. The most widely recognized Paleoindian tool in Florida is the Suwannee point, typically found along the springs and rivers of northern Florida. Evidence from Harney Flats has provided information on the manufacturing process of Suwannee points: first, a blank was struck from a chert core; then, the blank was bifacially worked into a preform; finally, the preform was knapped into the finished point (Daniel and Wisenbaker 1987:44–53). Other points, including Simpson and Clovis points, are found in lesser numbers. Some of these, and other Paleoindian lanceolate points, were hafted by attaching them to an ivory shaft that was, in turn, attached to a wooden spear shaft (Milanich 1994:48–49).

Other Paleoindian stone tools are known from the Harney Flats site (Daniel and Wisenbaker 1987:41–97), the Silver Springs site in Marion County (Neill 1958), and other northern Florida sites (Purdy 1981:8–32). These Paleoindian tools tend to be unifacial and plano-convex, with steeply flaked, worked edges (Purdy and Beach 1980:114–118, and Purdy 1981). Bifacial and "hump-backed" unifacial scrapers, blade tools, and retouched flakes, including spokeshaves, have been found at these sites (Purdy 1981; Daniel and Wisenbaker 1987:62–81, 86–87). However, some tools are little more than flakes or blades that were struck from cores, used, and discarded (Milanich 1994:51). Other stone tools include an oval, ground stone weight that was found at the Page/Ladson site from a stratum dated to 12,330 years ago (Dunbar et al. 1989:479). It is thought to represent a bola weight, which is a stone weight attached by a leather thong and thrown to bring down water birds and other game (Milanich 1994:51).

Dunbar et al. (1988) review of Paleoindian site/point locations in western Florida and results from excavations at the Harney Flats site revealed that 60 percent of the site clusters were located in and around mature karst river channels. In fact, 90 percent of all Paleoindian sites/points were located around karst depressions within Tertiary limestones. The most recent distribution maps of Paleoindian points in Florida show that 92 percent of Clovis and Suwannee projectile points are found in the region of Tertiary limestone features (Dunbar 1991).

Data on Paleoindian subsistence is scarce; although, such data is dramatic where encountered. The best evidence consists of the remains of a giant land tortoise recovered from the Little Salt Spring site in Sarasota County (Clausen et al. 1979). Although human skeletal remains were associated with extinct Pleistocene fauna at Devil's Den (Martin and Webb 1974), Milanich (1994) suggests that sloth, mastodon, mammoth, and bison probably formed part of the Paleoindian diet. There is very little information upon which to reconstruct the Paleoindian subsistence base. If, as Daniel and Wisenbaker (1987) suggested, there was seasonal movement along the river valleys, then not only is a seasonal littoral focus likely, but it also becomes likely that the majority of Paleoindian sites exist underwater (Dunbar 1988; Dunbar et al. 1988), rendering subsistence data for half of the Paleoindian year mostly inaccessible.

Archaic Period (7500–500 BC)

The Archaic period of cultural development was characterized by a shift in adaptive strategies stimulated by the onset of the Holocene and the establishment of increasingly modern climate and biota. It is generally believed to have begun in Florida around 7500 BC (Milanich 1994:63). This period is further divided into three sequential periods: the Early Archaic (7500–5000 BC), the Middle Archaic (5000–3000 BC), and the Late Archaic (3000–500 BC). The Late Archaic is subdivided into the Preceramic Late Archaic (3000–2000 BC) and the Orange Period (2000–500 BC).

Early Archaic (7500–5000 BC)

Cultural changes began after about 8000 BC in the late Paleoindian times with the onset of less arid conditions, which correlates with changes in projectile-point types, specifically a transition from lanceolate to stemmed varieties. Beginning about 7500 BC, Paleoindian points and knives were replaced by a variety of stemmed tools, such as the Kirk, Wacissa, Hamilton, and Arredondo types (Milanich 1994:63).

Kirk points and other Early Archaic diagnostic tools are often found at sites with Paleoindian components, suggesting that Early Archaic peoples and Paleoindians shared similar lifeways (Daniel and Wisenbaker 1987:33–34). However, it appears that the distribution of Early Archaic artifacts is wider than that of Paleoindian materials. Sites having both Paleoindian and Early Archaic components have been found to be largely restricted to natural springs and the extensive perched water sources of northern Florida. Early Archaic points are found in smaller numbers at upland sites in northern Florida where there is a lack of Paleoindian materials (Neill 1964; Janus Research 1999:58–61). Although this patterning is largely based on evidence from Alachua and Marion Counties, there is no reason to believe that patterning is different elsewhere in interior northern Florida (Milanich 1994:64).

One Early Archaic wetland site that does not have a Paleoindian component is the Windover Pond site near Titusville in Brevard County. This site is a precontact cemetery consisting of over 160 burials in the natural peat deposits of what was, during the Early Archaic, a woody marsh (Stone et al. 1990:177). It is the most thoroughly excavated early precontact site in the East and Central archaeological area of Florida and has produced normally perishable items such as samples of cloth in which the dead were wrapped before burial, wood artifacts, preserved brain and other soft tissue, and samples of proteins and mitochondrial DNA. Radiocarbon dates indicate that the interments were made in discrete episodes of short duration between 6000 and 5000 BC. This indicates that a single social group used the pond to bury their dead in one small area, the location of which was somehow marked or memorized. Later, another group, probably the descendants of the first group, again used the pond for burial. After 5000 BC, increasingly wetter conditions most likely made it too difficult to bury people in the peat of the pond bottom (Doran and Dickel 1988a).

With the wetter conditions that began about 8000 BC and the extinction of some of the Pleistocene animal species that helped to sustain earlier populations, Paleoindian

subsistence strategies were no longer efficiently adapted to the Florida environment. As environmental conditions changed, surface water levels throughout the state increased and new locales became suitable for occupation. Early Archaic peoples might be viewed as a population changing from the nomadic Paleoindian subsistence pattern to the more sedentary coastal- and riverine-associated subsistence strategies of the Middle Archaic period.

Middle Archaic Period (5000–3000 BC)

Throughout the Middle Archaic, environmental and climatic conditions would become progressively more like modern conditions, which would appear by the end of the period, circa 3000 BC. During this period, rainfall increased, surface water became much less restricted and, as a result, vegetation patterns changed. The Middle Archaic period is characterized by increasing population and a gradual shift toward shellfish, fish, and other food resources from freshwater and coastal wetlands as a significant part of their subsistence strategy (Watts and Hansen 1988:310; Milanich 1994:75–84). Pollen evidence from Florida and south-central Georgia indicates that after about 4000 BC, a gradual change in forest cover took place, with oaks in some regions giving way to pines or mixed forests. The vegetation communities that resulted from these changes, which culminated by 3000 BC, are essentially the same as those found in historic times before widespread land alteration took place (Watts 1969, 1971; Watts and Hansen 1988).

The Middle Archaic artifact assemblage is characterized by several varieties of stemmed, broad-blade projectile points. The Newnan point is the most distinctive and widespread in distribution (Bullen 1975:31). Other stemmed points of this period include the less common Alachua, Levy, Marion, and Putnam points (Bullen 1968; Milanich 1994). In addition to these stemmed points, the Middle Archaic lithic industry, as recognized in Florida, includes production of cores, true blades, modified and unmodified flakes, ovate blanks, hammerstones, "hump-backed" unifacial scrapers, and sandstone "honing" stones (Purdy 1981; Clausen et al. 1975).

Additionally, thermal alteration, a technique in stone tool production, reached its peak during the Middle to Late Archaic periods. This technique was usually used in late stage tool production (Purdy 1971, 1981:78). However, Austin and Ste. Claire (1982:101–106) observed that, at the Tampa Palms site in Hillsborough County, very few thinning flakes were thermally altered. They noted that at this and other Archaic sites in the region, thermal alteration and the presence of silicified coral were correlated (Austin and Ste. Claire 1982:104; Daniel and Wisenbaker 1981, 1987). It is apparent that there was a preference for thermally altered coral for technological and aesthetic reasons; not only is it more easily worked, but also it may have been valued for its color and luster (Purdy 1971; Austin and Ste. Claire 1982:104). At the Harney Flats site, Daniel and Wisenbaker (1987:33–34) found a Middle Archaic component with corresponding increases in the amounts of silicified coral and heat-treated lithic material.

Middle Archaic settlement patterns are believed to have followed the Early Archaic patterns until after circa 3000 BC, when settlement patterns shifted toward coastal and riverine resources. Daniel (1985:265) postulated that a seasonal dichotomy existed

between upland and lowland Middle Archaic sites in the Central Peninsular Gulf Coast archaeological area. According to his model, aggregate base camps were located along the upland boundaries of the Polk Uplands and were occupied during the fall and winter months. These upland sites are thought to be larger and contain a greater variety of functionally defined tools. These sites should also contain tools related to "maintenance" activities.

Dispersed residential camps were occupied in the Coastal Lowlands physiographic zone during the summer months. Daniel (1985) predicted these lowland sites would be smaller, more numerous, and exhibit a smaller number, and a more limited variety, of tool types. These sites are thought to contain tools related to "subsistence" activities. The lack of tool forms at these sites may also reflect an orientation towards activities that did not require the use of stone tools.

Middle Archaic sites are found in a variety of locations, including, for the first time, freshwater shell middens along the St. Johns River and the Atlantic Lagoon. Middle Archaic sites have been found in the Hillsborough River drainage northeast of Tampa Bay, along the southwestern Florida coast, and in South Florida locales such as Little Salt Spring in Sarasota County. In addition, Middle Archaic sites occurred throughout the forests of the interior of northern Florida (Milanich 1994:76).

Three common types of Middle Archaic sites are known in Florida (Bullen and Dolan 1959; Purdy 1975). The first are small, special-use camps, which appear archaeologically as scatters of lithic waste flakes and tools such as scrapers, points, and knives. These sites are numerous in river basins and along wetlands and probably represent sites of tool repair and food processing during hunting and gathering excursions (Milanich 1994:78).

The second common site type is the large base camp. This type of site may cover several acres or more, and contains several thousand or more lithic waste flakes and tools. A good example of this type of site is the Senator Edwards site in Marion County (Purdy 1975; Purdy and Beach 1980). One implication of this type of site is that a greater variety of tools were being used in this period than in the preceding one. It is possible that a more sedentary way of life led to the development of more specialized tools. Some of the tools indicate woodworking activity, possibly related to constructing more permanent houses (Milanich 1994:78–79).

The third common type of site is the quarry-related site that occurs in localities of chert outcrops. Chert deposits often outcrop along rivers or around lakes and wetlands as erosion cuts through the soil to the underlying limestone bed. The resulting outcrops provided opportunities for native peoples to quarry this raw material for stone tool production. Some of these sites have also produced evidence of late period tool production, including large flake blanks, bifacial thinning flakes, blades, and unifacial and bifacial tools (Milanich 1994:78–79; Purdy 1975).

Recently, a new site type has been identified in Hillsborough County. The West William site (8HI509) was identified as containing deposits of faunal remains, pit features, and

structural remains, while lacking in the typical tool pattern commonly associated with upland sites (Austin et al. 2001:10). With these features, Austin et al. (2001:10) hypothesized that the site represents a seasonal congregation camp for the purpose of "social interaction, ceremonial feasting, and/or mate exchange."

Other less common site types include cave camps in northern Florida and wetland cemeteries. Examples of the latter site type include the slough burials at Little Salt Spring in Sarasota County (Clausen et al. 1979), the pond burials at the Bay West site in Collier County (Beriault et al. 1981), and the Republic Grove site in Hardee County (Wharton, Ballo, and Hope 1981). Like the Windover site of the Early Archaic peoples, these sites provide a glimpse of the range of objects used by Middle Archaic peoples such as antler, wood, and bone tools not preserved on land sites (Milanich 1994:82).

Although most of the Early and Middle Archaic cemeteries throughout peninsular Florida appear to have used aquatic environments, at least two exceptions are noted: the Tick Island and Gauthier sites. Interments at the Tick Island site, located in the St. Johns River basin, were made in an existing freshwater shell midden subsequently covered with a mound of sand (Bullen 1962). Over time, this process was repeated as other groups were interred. Later, post–Middle Archaic people re-used the site, depositing shell refuse on top of the burial area (A.K. Bullen 1972:166; Jahn and Bullen 1978).

The other unique Middle Archaic burial site is the Gauthier site, located in Brevard County about six miles from the coast. Interments were made by creating a shallow depression in the soil and laying bodies in it, at times, one on top of another. Artifacts found with the flexed burials include limestone throwing-stick weights, antler "triggers" from throwing sticks, projectile points, tubular *Busycon* shell beads, ornaments of bone, and worked shark teeth that had probably been hafted and used as knives or scrapers (Carr and Jones 1981).

Both of the sites described above contained artifacts securely dating the sites to the Middle Archaic period. It is possible that these two sites represent the development of new burial patterns which correlated with the end of the Middle Archaic period, at which time pond burials fell into disuse and were replaced with the new burial patterns (Milanich 1994:84).

Mount Taylor Culture

By 4000 BC, Archaic hunter/gatherers were spending much of the year in villages along the St. Johns River and its tributaries. This phase of Middle Archaic development, known as the Mount Taylor Culture after the site type in Volusia County (Goggin 1952), is characterized by the dietary importance of freshwater snails (Cumbaa 1976) and the use of stemmed projectile points with triangular blades, as well as bone points and tools. Excavations at the Tick Island site, also in Volusia County, revealed a mass burial in a midden perhaps associated with a charnel house, an early instance of such a burial pattern (Jahn and Bullen 1978). While the exact beginning of the period is still unclear, it believed to start within the Middle Archaic period (Milanich 1994). Milanich (1994) notes that there may not be a difference between Mount Taylor and the later Orange

periods and that Mount Taylor should be used in association with the Middle Archaic period and the preceramic period of the Late Archaic.

Late Archaic Period (3,000–500 BC)

After 3000 BC, there was a general shift in settlement and subsistence patterns emphasizing a greater use of wetland and marine food resources than in previous periods. This shift was related to the natural development of food-rich wetland habitats in river valleys and along the Atlantic and Gulf coasts (Bense 1994). By the Late Archaic period, a regionalization of precontact cultures began to occur as human populations became adapted to specific environmental zones. Based on current evidence, it appears that relatively large numbers of Late Archaic peoples lived in some regions of the state but not in others. For example, large sites of this period are uncommon in the interior highland forests of northwestern Florida and northern peninsular Florida, regions where Middle Archaic sites are common. The few Late Archaic sites found in these areas are either small artifact scatters or components in sites containing artifacts from several other periods. This dearth of sites in the interior forests suggests that non-wetland locales either were not inhabited year-round or were only inhabited by small populations (Milanich 1994:87).

Extensive Late Archaic middens are found along the northeastern coast inland waterway from Flagler County north, along the coast of southwestern Florida from Charlotte Harbor south into the Ten Thousand Islands, and in the braided river-marsh system of the central St. Johns River, especially south of Lake George. The importance of the wetlands in these regions to precontact settlements was probably duplicated in other coastal regions, especially the Central Peninsular Gulf Coast and the Northwest (Milanich 1994:85). However, in many of these coastal areas, such as Tampa Bay, many of the Late Archaic sites are inundated (Warren 1964, 1970; Warren and Bullen 1965; Goodyear and Warren 1972; Goodyear et al. 1980).

Orange Period

By about 2000 BC or slightly earlier, the firing of clay pottery was either invented in Florida or the technique diffused from coastal Georgia and South Carolina, where early dates for pottery have been obtained (Milanich 1994:86). At one time, it was thought that the earliest pottery-manufacturing culture in Florida was the Orange culture of the St. Johns region in northeast Florida. But additional evidence from southwest Florida indicates fired clay pottery from northeastern and southwestern Florida is comparable to the early dates from sites in Georgia and South Carolina (Division of Archives 1970; Cockrell 1970; Widmer 1974; McMichael 1982; Russo 1991).

The earliest ceramics in Florida were tempered with plant fibers such as palmetto fiber or Spanish moss. The first use of pottery is well dated to the period from circa 2000 BC to 1000 BC, making fiber-tempered pottery a convenient horizon across the state. Although at first undecorated, various techniques were used to apply surface decoration, starting sometime around 1650 BC, providing an important tool for differentiating sites dating to the second half of the Late Archaic, known as the Orange Period (2000–500 BC) (Milanich 1994:86, 94). Table 2 illustrates the Orange Period ceramic chronology.

Table 2: Orange Period Ceramic Chronology

Period	Dates
Orange 5	1000–500 BC
Orange 4	1250–1000 BC
Orange 3	1450–1250 BC
Orange 2	1650–1450 BC
Orange 1	2000[a]–1650 BC

Source: Milanich (1994) based on Bullen (1955, 1972)
[a] or slightly earlier

However, recent data from sites in northeastern Florida suggests a revised Orange period chronology (Sassaman 2003:5-14). Sassaman (2003:9) indicates that "...the four major subperiods of Bullen's sequence (i.e., Orange 1-4) collapse down into one (Orange 1)." This revised chronology suggests that variations in Orange period ceramic paste, form, and decoration do not represent temporal changes.

Riverine middens in the East and Central cultural region have produced artifacts that illustrate aspects of Late Archaic subsistence technology, such as the throwing stick, use of which is indicated by the presence of steatite throwing-stick weights and stemmed projectile points. Russo (1992:198) suggests that, along the coast, fine-mesh nets were also used to catch fish from the estuarine tidal creeks. Also common in these midden sites were picks and hammers made of shell, pins, points, and other tools made of bone (Milanich 1994:92–93).

Recently, a cluster of unique Late Archaic sites was identified in Pasco County (Estabrook et al. 2001). The sites within this cluster, referred to as the Enclave sites, contain freshwater midden remains and represent a rarely seen inland site type. The evidence recovered indicates a heavy reliance on aquatic resources and suggests that coastal dietary practices were carried into the interior (Estabrook et al. 2001).

As more research is completed and regional differences among Late Archaic peoples in Florida are recognized, it is apparent that specific regional manifestations must be defined. These manifestations will undoubtedly be recognized as closely linked to the post–500 BC regional cultures of the Formative period discussed below.

Formative and Mississippian Periods (500 BC–AD 1513)

Changes in pottery and technology occurred in Florida during the Late Archaic period, also known as the Florida Transitional period; these changes mark the beginning of the Formative period. Fiber-tempered wares were replaced by sand-tempered, limestone-tempered, and chalky temperless ceramics and three different projectile point styles (basally-notched, corner-notched, and stemmed) occur in relatively contemporaneous contexts. This profusion of ceramic and tool traditions suggests population movement and social interaction between culture areas.

Mississippian cultural development began in the central Mississippi Valley around AD 750 and was adopted by cultures in Florida between AD 800 and AD 1000. It was

characterized by elaborate community developments including truncated pyramidal mounds, large plazas, and a chiefdom-level of socio-political organization. Other distinctive traits include small, triangular-shaped projectile points, the use of the bow, religious ceremonialism, increased territoriality and warfare, and, in some areas, development of agriculture (Milanich 1994:355–412).

East and Central Cultural Region

East and Central Florida is a region composed of the lower and central portions of the St. Johns River, its tributaries, adjacent portions of the coastal barrier–salt marsh–lagoon system, and the Central Florida Lake District. These areas were occupied during the Formative period by what archaeologists call the St. Johns cultures. The early St. Johns I and II cultures developed out of the Orange culture of the Late Archaic period. In general, there was great continuity in this region from the time of the Orange Period peoples to the time of the various eastern Timucuan-speaking groups who lived there in the colonial period (Milanich 1994). A chronology for the St. Johns culture sequence is shown in Table 3. The dates for these periods, it should be noted, correspond with other chronologies in northern Florida. This is due to shared traits among the groups of northern and eastern Florida. Primarily, ceramic changes, on which archaeologists base their chronologies, spread across northern Florida at approximately the same time. Also, the same pre-Columbian developments that influenced other cultures in the Southeast also affected the St. Johns cultures (Milanich 1994).

Table 3: St. Johns Region Chronology

Period	Dates
St. Johns I	500 BC–AD 100
St. Johns Ia	AD 100–500
St. Johns Ib	AD 500–750
St. Johns IIa	AD 750–1050
St. Johns IIb	AD 1050–1513
St. Johns IIc	AD 1513–1565

Source: Milanich (1994)

On the east coast of the Florida peninsula, a set of seasonality and settlement models have been forwarded based on studies performed on midden deposits on the St. Johns River and its associated estuary systems (Cumbaa 1976; Sigler-Eisenberg 1985; Sigler-Eisenberg and Russo 1986; Russo 1988; see also Ste. Claire 1990). These studies indicate that different forms of residential mobility can be suggested for different environmental areas and that the St. Johns peoples, like their Archaic predecessors, adapted to year-round exploitation of coastal environments. They continued to live along the St. Johns River and its tributaries, such as the Oklawaha River, down to western Brevard County, along the coastal lagoons and barrier islands, and around the numerous lakes near the St. Johns River and those in Orange, Lake and northern Osceola counties (Milanich 1994:254).

Throughout the East and Central region, archaeological surveys and excavations have demonstrated that Orange Period and St. Johns I period components are found in the same locales, often at the same site (e.g., Bullen and Griffin 1952; Goggin 1952; Jahn

and Bullen 1978; Newman and Weisman 1992; Russo, Cordell, and Ruhl 1992; Wayne and Dickinson 1993; Weisman 1993). This continuity is illustrated in a study by James Miller (1991:155, 172), who plotted locations of all known Orange and St. Johns I sites on the St. Johns River from Lake George north. Miller's study also demonstrated similar settlement continuity between the St. Johns I and St. Johns II cultures (1991:172, 176). Such continuity is to be expected in a region where wetlands were so important (Milanich 1994:255).

Another trend observable in this region is a general population increase from the Orange Period into the St. Johns II period. Such an increase is strongly suggested by indices calculated by Miller that chart numbers of sites per century per period (Miller 1991:152, 180). These indices are especially suggestive of population increase during the St. Johns IIb period when agriculture is thought to have been important to local native economies. After about AD 1050, at least some of the St. Johns IIb period groups living along the St. Johns River developed complex socio-political structures similar to those of the contemporary Fort Walton, Pensacola, and Safety Harbor cultures of the Mississippian period (Milanich 1994:255–257).

Few St. Johns I period habitation sites have been extensively studied. However, evidence from several sites strongly suggest that year-round St. Johns settlements were present in the coastal zone and that such sites were often adjacent to special-use camps (Russo et al. 1989; Russo, Cordell, and Ruhl 1992). The tools and other St. Johns I period artifacts associated with these sites were similar to those found associated with Orange Period sites. Examples include bone and shell tools, net weights, stone plummets, bottle gourd containers, distinctive chalky St. Johns ceramic wares, and occasional sand-tempered plain ceramics. Although surface decoration occurs on some of the St. Johns wares, the trend over time is for fewer decorated sherds during this period (Milanich 1994:257–264).

Constructed sand burial mounds are present during the St. Johns I period, prior to AD 100. Goggin (1952) describes these mounds as low rises or truncated cones usually less than four feet high, although a few are almost 10 feet high. Deposits of red ochre or a similar mineral were often placed in these mounds. Primary flexed, extended, and secondary bundle interments are known in this period, the latter indicating the use of a charnel house (Milanich 1994:260).

After AD 100, new ideas appear to have entered the region along with exotic items. Such objects, placed in caches in mounds or with individual burials, included mica and galena, copper-covered animal bones, wooden effigies, greenstone celts, quartz plummets, copper discs, copper earspools, and effigy pipes. Locally made Dunns Creek Red and St. Johns Plain and St. Johns Check Stamped vessels were placed in the mounds (Milanich 1994:262).

The St. Johns Ia period mounds tended to be larger than those of the earlier St. Johns I period, and all are constructed in the shape of truncated cones. In later mounds of this period, Swift Creek Complicated Stamped vessels are also found. Log tombs containing

numerous burials were found in two St. Johns Ia period sites (Bullen et al. 1967; LaFond 1972, 1983).

During the St. Johns Ib period, the diffusion of Weeden Island rituals and beliefs into the region is reflected in the types of exogenous ceramics found in the mounds. Additionally, some mounds contain vessels made with St. Johns chalky paste but in Weeden Island shapes and decorated with Weeden Island motifs. These copies of Weeden Island vessels sometimes depict animals, such as a duck effigy and other ceramics found in a mound at Tick Island (Goggin 1952:100; Moore 1894a: 58–63). By the end of the St. Johns Ib period, circa AD 750, native groups were living in villages and practicing horticulture, as was common throughout Florida at this time (Milanich 1994:262).

The appearance of St. Johns Check Stamped pottery marks the beginning of the St. Johns IIa period. Although significant continuity exists between the St. Johns I and II periods, there is an increase in the number of sites or St. Johns II components within sites. Population increases in at least some locales within the St. Johns drainage resulted in the development of a more complex socio-political organization, much like that of contemporary Mississippian cultures to the north and northwest. There is evidence that at least one of the St. Johns IIb period mound sites interpreted as the center of a chiefdom was still occupied when European influences first reached Florida (Milanich 1994:263).

Subsistence practices among the St. Johns II peoples were very similar to those of the St. Johns I period. Evidence from two St. Johns IIb sites provided evidence of the use of maize, gourds, squash, acorns, hickory nuts, cabbage palm, may pop, grape, and saw palmetto, among other plants (Newsom 1986, 1987; Purdy 1991). Faunal samples from excavations at Hontoon Island (Wing and McKean 1987) were dominated by freshwater species such as snail, catfish, gar, bass, mullet, aquatic turtle, and alligator, as well as terrestrial species such as ducks, geese, gopher tortoise, rabbit, deer, and turkey. Most popular in the meat diet were freshwater snail, catfish, pond turtle, and gopher tortoise. All of the latter species could be taken with simple and efficient technologies: gathering snails and gopher tortoises by hand, using hook and line or nets for catfish, and catching turtles with traps or by hand (Milanich 1994:266).

Currently, knowledge of St. Johns II political and ceremonial life comes almost entirely from mounds excavated by Clarence B. Moore (1894a, 1894b, 1896a, 1896b, and 1896c). His reports suggest that St. Johns IIa period mounds tend to be larger than those of the St. Johns I period, and that they continued to be used for kin-based interments. Some of these mounds had associated causeways (Bartram 1928:101–102;Goggin 1952:55; Laudonnière 1975:115, 137; Newsom 1986).

Archaeological evidence does suggest that Mississippian cultures did have some influence on St. Johns IIb peoples, and some artifacts similar to those from Mississippian mounds have been recovered from sites in the St. Johns region during this period (Moore 1894a, 1894b; Brown 1985). Artifacts recovered from such mounds have included "killed" *Busycon* shells, greenstone celts, spatulate greenstone celts, ceramic biconical tubes, ceramic plant and animal effigy vessels, a limestone earspool with copper sheeting,

a copper breast plate with "forked eye" motifs, a large wooden owl carving, and wooden carvings of an otter and a pelican (Moore 1894a; Bullen 1955:61; Purdy 1991:110, 119–120).

The St. Johns IIb is generally characterized by the appearance of some southeastern Mississippian traits, presumably resulting from socio-religious interaction with the Fort Walton and Safety Harbor cultures of Florida. During the St. Johns IIb period, at least some of the mounds were used as tombs for elite individuals. This suggests that areas in which these mounds are located had the largest populations and the most efficient economies, further indicating that chiefdoms may have replaced the former "big-man" societies. However, as was the case in the Central Peninsular Gulf Coast region, it is likely that agriculture was never as important in the East and Central region as it was for Mississippian societies due to the reliance of the St. Johns peoples on coastal and wetland food resources (Milanich 1994:268).

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The St. Johns IIc period is marked by the introduction of European artifacts in some mounds. Ethnohistoric accounts describe the native tribes who lived in the area as the Acuera of the Eastern Timucua (Deagan 1978). Gathering, hunting, and shellfish collecting continued as the primary subsistence mode supplemented by the cultivation of corn, beans, tobacco, and other crops. Villages were located near freshwater streams or lakes and were ruled by a chief. The Fort Mason Mound on the Oklawaha River contained European trade goods in association with burials (Moore 1896; Deagan 1978), and is currently the only mound known to have been used by the Acuera. Other, similar sites have been found in Osceola County, including the Southport Mound (Mitchem, Austin, and Mitchell 1998) and the Beehive Hill mound (Janus Research 2000), both of which are believed to be associated with the Mayaca.

Regional Variants: St. Mary's and Indian River

The St. Johns region was not a single, homogenous culture area. Regions of ceramic transitions have been documented on its northern and southern borders: the St. Mary's variant to the north and the Indian River zone to the south. Research has indicated that there is a ceramic complex related to that of the Savannah culture to the north (in present-day Georgia), which existed during the Formative period and was centered in the marsh–barrier island–estuary region at the mouth of the St. Johns River (Bullen and Griffin 1952; Sears 1957; Lee et al. 1984; Saunders 1987; Russo 1992).

The St. Marys region is defined as the coastal area extending from the Satilla River in Georgia to below the mouth of the St. Johns River in Florida, bisected by the St. Marys River along the Georgia-Florida border (Russo 1992). The St. Marys region bears an assortment of artifacts that reflects the area's overlapping, inter-regional cultural occupations and influences. Russo asserts that in terms of ceramic chronology, subsistence and settlement practices, the St. Marys culture area is representative of not competing or blending cultures, but rather a unique group of people who differ culturally from their neighbors (Russo 1992:120). These groups differ from the surrounding groups in their pre-ceramic occupation of the coastal zone, their more complex and permanent Orange Period settlement patterns, and their manufacture of Colorinda and charcoal-tempered ceramics (Sears 1957, 1959; Ashley 1992; Russo 1992:120).

The oldest site associated with the St. Marys region is the Spencer's Midden site, which lies on the western edge of the City of Atlantic Beach. This site is a coquina/oyster shell midden approximately 50 m in length and more than 1 m deep. No ceramics were recovered from this site, but the property owner collected two archaic stemmed points near the midden. The radiocarbon age of 3620 BC (5570 BP) makes it the oldest known coastal midden on the southeastern seaboard. Zooarchaeological evidence associated with this midden suggests multiple seasonal occupations, probably year-round occupation, centering on the collection of oyster, coquina, and small estuarine fish (Russo 1992).

During the St. Johns Period, the St. Johns area south of the St. Marys area is defined by the dominance of St. Johns Plain wares and some Dunn's Creek Red ceramics. Later during this period, there arises the evidence of trade wares in burial contexts, such as Hopewellian items. Still later during this period, Swift Creek and Weeden Island pottery makes an appearance. It is believed that during this time the St. Johns I people subscribed to a settlement pattern that shifted from the central St. Johns River valley towards the coast. Goggin believed that this shift from riverine to estuarine resources came about because of the increase in sea level, which resulted in the development of estuaries, making resources such as oyster and other shellfish and estuary items sustainable resources. Horticulture also is hypothesized for this period (Russo 1992).

It is unknown whether the St. Marys region follows this settlement pattern. It is known that the St. Marys region varies slightly in the ceramic artifacts associated with its mounds during this period. As opposed to St. Johns wares being the most abundant ceramic, sand-tempered plain wares are most abundant at a ratio of 34% sand-tempered plain wares versus 17% St. Johns Plain wares. Russo believes the increase in sand-tempered plain wares is indicative of other non-St. Johns groups influencing the St. Marys region. The St. Marys region differs ecologically from the other parts of the north and central east coast of Florida in that there are more extensive estuaries in this region. Vernon has suggested that Deptford peoples, who were dependent on aquatic resources, may have moved into the St. Marys area. Russo believes that some St. Johns I mounds identified by Goggin in 1952 may more accurately be classified as Deptford (Russo 1992).

Swift Creek wares have been found in burial mounds within the St. Marys region. Recently, archaeologists have identified Swift Creek sites and Swift Creek components from midden sites in this region. In these sites, plain ceramics are the dominant type with St. Johns, Deptford, and Swift Creek Complicated Stamped wares as a minority. Sears referred to this as the "plain sand-tempered" period (Sears 1957 in Russo 1992:115). Plain ceramics, when found in association with Swift Creek wares, were likely manufactured by Swift Creek potters. Colorinda is another ceramic associated with the St. Marys region. Colorinda is a sandy paste ware tempered with crushed St. Johns sherds. Sears (1957, 1959) identified this type as a local, separate and unique ceramic type associated with the St. Marys region. Sears (1957, 1959) asserts that this pottery type is the result of influence from Wilmington cultures found in Georgia. A radiocarbon date associated with the Colorinda wares at the Coffee Mound (8DU7472) indicates that these wares are contemporary with the St. Johns Ib period. In addition, it has been suggested that the charcoal-tempered wares found in St. Marys sites may be associated with Swift Creek ceramics (Russo 1992, Sears 1957, 1959).

Many St. Mary's variant sites contain mixtures of St. Johns and Savannah or other typical Georgia ceramics (Larson 1958; Smith et al. 1981; Saunders et al 1985). This suggests that this area was a transition zone in which inhabitants produced the same types of ceramics as their neighbors to the north and south (Milanich 1994:249). During the St. Johns I and II periods, the people of the St. Mary's region probably used their coastal habitats in much the same way as the contemporaneous populations of coastal Georgia, including cultivating maize after about AD 1200 or earlier (Lee et al. 1984).

South of the St. Marys region, St. Johns II sites are dominated by St. Johns Plain and St. Johns Check Stamped wares. North of the St. Marys region, Savannah sites are dominated by sand-tempered, cord-marked and plain wares. In addition to a transitional zone, it has been suggested that there have been separated occupations in the area by Savannah and St. Johns peoples at different times, close enough in time to appear almost archaeologically invisible. Although both St. Johns and Savannah pottery types are found almost equally in the St. Marys region, another unique pottery type is also recovered, a plain unnamed "gritty ware" and similar cord-marked sherds of this type. This gritty ware has been considered as possibly indicative of the St. Marys region as a unique cultural entity (Russo 1992:119).

Recent studies of sand-tempered, cord-marked pottery in northeastern Florida and southeastern Georgia have indicated differences in ceramics formerly included under the designation of Savannah Fine Cord Marked pottery (Ashley and Rolland 2002). Ashley and Rolland have determined that a new type should be defined for the thin, sand-tempered, cord-marked ware that they believe was manufactured by Ocmulgee immigrants that moved into northeastern Florida sometime after AD 1250. They propose that this new type, which they call St. Marys Cordmarked, was produced locally in northeastern Florida and southeastern Georgia from AD 1250 to sometime after AD 1500. This new type is distinguished from the gritty Savannah Cord Marked pottery that was produced in the traditional Ocmulgee and Savannah heartlands to the north (Ashley

and Rolland 2002:25). The following cultural chronology is representative of the blending of the northern and southern influences affecting the St. Marys region.

Table 4: St. Marys Region Culture Chronology

Period	Dates
St. Marys II	AD 1250–1500+
St. Johns II	AD 900–1250
St. Marys I	500 BC–AD 900
Transitional	1000–500 BC

Source: Ashley and Rolland 2002

Site types and settlement patterns also show distinctions between the St. Marys region and surrounding cultural regions. Shell midden sites are numerous in the area. According to Russo (1992), there is a clinal distribution of sites with more Savannah-like sites located to the north, more St. Johns-like sites located to the south, and a mixture in between. Exceptions do occur but are relatively rare. The large mounded middens characteristic of the St. Johns heartland and dating to St. Johns II are non-existent. The mounded middens located in the region are of an earlier date. It also appears that the St. Marys region relied less on corn production than either the Savannah or St. Johns peoples (Lee et al. 1984).

In general, three perspectives of cultural development are given for the St. Marys region. The first perspective indicates that this region is a border area in which competing cultures from east central Florida and coastal Georgia won and lost territory in a poorly understood chronological sequence. The second perspective indicates that the St. Marys region was a transitional area in which influence from neighboring regions manifested in ceramics and other artifacts, subsistence practices, and settlement patterns. The third perspective asserts that the St. Marys culture area is a unique culture from those surrounding it (Russo 1992: 120).

The period of contact and missionization is distinguished archaeologically in the St. Marys region by the presence of European ceramics and San Marcos wares. The San Marcos wares are believed to be associated with the Guale natives who moved down from Georgia during the mid-1600s. However, early contact period sites most likely contain a majority of Savannah or St. Johns wares of local Timucuan groups. Linguistically similar groups occupied the St. Marys region, but these groups maintained their cultural identity by using differing ceramics. The dichotomy of St. Johns and Savannah wares that preceded contact continued at least through the early part of the contact period. Consequently, some post-contact sites are difficult to distinguish from their precontact neighbors. There is, however, a general trend for the more northern Georgian populations to move into this area (Russo 1992).

The two main historic groups in the area are the Timucua and the Guale. The Timucua are a group of people who spoke a related language. In the early sixteenth century, native groups who spoke dialects of this language occupied the northern third of Florida from the Aucilla River east to the Atlantic Ocean and south though Marion County if not farther. Timucua speakers also lived in southern Georgia. The distribution of these

speakers within Georgia is not known for certain, but historic documents indicate that the boundary can be drawn as far north as Altamaha River and as far inland as Valdosta (Milanich 1995:80).

The Timucuan language is known through the efforts of a Franciscan priest, Father Francisco Pareja, who wanted to record the language in order to teach incoming missionaries. Father Pareja served at the mission of San Juan del Puerto on Fort George Island north of Jacksonville during the late sixteenth and early seventeenth centuries. Generally, the Timucuan-speaking groups are divided into western and eastern divisions. The eastern groups lived from the St. Johns River east, to the Atlantic Ocean, including Georgia. The western Timucuan groups lived west from the St. Johns River across southern Georgia and northern Florida. All the Timucuan groups relied on plant cultivation for at least a portion of their diet. It is possible that the western groups may have relied more heavily upon cultivation due to the absence of other abundant subsistence areas such as estuaries.

The Guale Indians are a group associated with southern coastal Georgia. From St. Simons Island to St. Augustine was an area occupied by Timucuan-speaking natives. This area was sometimes referred to as San Pedro, or *Mocama*, meaning "salt water." During the seventeenth century, this area would be included in the area known as Guale, named for the natives who lived along the Georgian coast (Milanich 1995:169–170). Laudonnière (1975) was a Frenchman who recorded an account that indicates the Timucuan of the contact period practiced a form of settlement in which the groups moved away from the coast to the interior forest to hunt during winter and fall. Later, missionization would discourage any nomadic behavior, but Larson (1978) has noted similar behavior among the Guale (Russo 1992:120).

The Guale, during later periods, became more sedentary, settling as permanent residents along the coast and supplementing their corn horticulture with shellfish exploitation. Larson (1978) suggests that large-scale fishing using weirs and nets was not viable due to high tidal action along the southern Georgia coast. He suggests that this is the reason horticulture remained an important part of the Guale subsistence strategy. When the Guale moved south into the St. Marys region, it is likely that fishing activities increased with the presence of exploitable estuarine environments. The site from Kings Bay indicates heavy reliance on estuarine subsistence during this period, as in earlier periods. This subsistence strategy would probably change dramatically after missionization occurred (Russo 1992:120).

The Indian River transition zone, located in the Indian River area at the southern end of the St. Johns region in Brevard, Indian River, and St. Lucie counties, encompasses the Indian River (a coastal lagoon) from near Merritt Island south to St. Lucie Inlet. It includes wet marshlands, the braided stream system, and the lakes that comprise the St. Johns River basin 10 to 20 miles inland from the coast. Settlement patterns are indicated to have consisted of more permanent habitations along the marshes of the St. Johns River basin with special-use camps both inland and along the coast (Milanich 1994:249–254).

Although there is a specific chronology assigned to this region (Rouse 1951), it mirrors the St. Johns sequence and so will not be reproduced here to avoid confusion. Although St. Johns ceramics are present in the region, there are also significant amounts of sand-tempered plain wares, which Rouse (1951) and other researchers (e.g., Ferguson 1951) originally called Glades Plain or Belle Glade Plain, attempting to demonstrate affinities to South Florida assemblages and cultures (Milanich 1994:250). More recent analysis of Indian River region ceramics has shown that both the St. Johns and sand-tempered pottery are made from local clay sources (Espenshade 1983), suggesting that one group made both wares. Ann Cordell's (in Sigler-Eisenberg et al. 1985:118–134) analysis of pottery samples from several sites in southern Brevard County has demonstrated continuity in ceramic manufacturing from the Orange Period into the equivalent of the St. Johns II period.

HISTORICAL OVERVIEW

The intent of this section is to identify the possible locations of any resources within the cultural assessment project area and to provide a background for the determination of their historical potential. To this end, books, maps, and manuscripts located at the University of South Florida Special Collections Department, Florida Department of Environmental Protection, Division of State Lands, Florida Historical Society, Alma Clyde Field Library of Florida History, Central Brevard Public Library and Reference Center, and Janus Research were examined, and interviews with local informants were conducted.

European Contact and Colonial Period (ca. 1513–1821)

The arrival of the Spanish during the early 1500s initiated a period of profound social and cultural upheaval among the indigenous cultures inhabiting the state. Many traditional ways of life were destroyed or abandoned, while the remaining cultures were modified by the acquisition of Spanish traits and adaptation to the presence of a new and dominant culture.

The earliest contact between the native populations and the Europeans consisted of slave hunting expeditions. "Slaving expeditions," which provided workers for the mines of Hispaniola and Cuba, were not recorded in official documents as the Spanish Crown prohibited the enslavement of Caribbean natives. Evidence of these slave raids comes from the familiarity with the Florida coast stated by navigators of the earliest official coastal reconnaissance surveys (Cabeza de Vaca 1542:Chapter 4). The hostile response of the native population to expeditions during the 1520s may confirm this hypothesis.

Official credit for the discovery of Florida belongs to Juan Ponce de León, whose voyage of 1513 took him along the eastern coast of the peninsula. He is believed to have sailed as far north as the mouth of the St. Johns River before turning south, stopping in the Melbourne Beach area in April of that year. The expedition then sailed southward, to Biscayne Bay and followed the Florida Keys, making contact with the local Tequesta people en route before turning to the northwest, where they encountered the Calusa people along the southwestern Gulf Coast. Other Spanish explorers followed Juan Ponce de León, and over the next 50 years, the Spanish government and private individuals financed expeditions hoping to establish a colony in "La Florida" (Tebeau 1971:21).

Three Native American ethnic groups inhabited eastern central Florida at the time of Spanish contact: the Ais, the Mayaca, and the Jororo. The Ais lived on present-day Merritt Island and along the Atlantic Coast, and they were closely involved with the Spanish. They inhabited the coastal strand and Indian River areas at this time. They apparently mixed the indigenous hunting/gathering/fishing economy with the salvaging of Spanish shipwrecks (Milanich 1994:64–65). The Mayaca and Jororo peoples occupied an area from north central Florida to as far south as Lake Okeechobee (Mitchem et al. 1998).

The Ais lived under a chiefdom, consisting of towns with individual leaders who were all under the control of a paramount chief referred to as Ais (Milanich 1995:66). The main town of the Ais was located on the barrier island a little to the north of the Fort Pierce Inlet in Indian River County. This town was known as "Ais" during early Spanish contact. However, Jonathan Dickinson, an Englishman who stopped briefly among the Ais in 1696, called the main Ais town Jece (Andrews and Andrews 1985).

In 1565, King Philip II of Spain licensed Pedro Menéndez de Avilés to establish a settlement in St. Augustine, Florida. Between 1565–1566, Menéndez sailed along the Florida coast placing crosses at various locations and leaving Spaniards "of marked religious zeal" to introduce Christianity to the Native American people (Gannon 1965:29). Settlements with associated missions were established at St. Augustine, San Mateo (Ft. Caroline) and Santa Elena, and smaller outposts and missions were located in Ais, Tequesta, Calusa, and Tocobaga territory (Gannon 1965:29).

The Mayaca people, along with the Jororo, were first mentioned in Spanish documents from the 1560s; Franciscan friars were working among them as early as the 1590s, but a formal mission was not established until about 1655 (Mitchem et al. 1998). It appeared on the 1655 list of missions as San Salbador de Mayaca (Hann 1996:178). In 1689, a mission to the Mayaca was listed as San Antonio de Mayaca, which consisted of a population of 30 families (Hann 1996:264). The Mayaca people were listed as part of the "Province of Timuqua," although there is solid evidence that the Mayaca were not Timucua-speakers, but spoke their own language (Hann 1996:264). The Jororo people, also Mayaca-speakers, apparently did not occupy the region until the late 1600s (Hann 1996:244; Mitchem et al. 1998).

In 1567, Brother Francisco Villareal was sent to one of the large Tequesta villages located on Biscayne Bay. In 1568, a skirmish between the Spanish soldiers and the Tequesta Indians temporarily closed the mission. By the end of 1568, the Tequesta were willing to reopen the mission, largely due to the work of Don Diego, a Tequesta who had visited Spain. Despite zealous attempts, the native groups in Florida continued to resist conversion and in 1572 Jesuit authorities decided to abandon their missionary efforts in Florida.

Undaunted, Menéndez turned his attention to another order, the Franciscans, and entreated them to send priests. The Franciscan mission effort was most successful in the northern areas of Florida. One possible reason may have been differences in Native American settlement patterns and economies among varying regions. According to Milanich (1978:68), the failure of the Spanish missions among the southern Florida native populations was due partially to the groups' subsistence pattern, which required seasonal movement for maximum resource exploitation. Consequently, for the remainder of the First Spanish period (1565–1763), the project area was virtually ignored as the Spanish concentrated their efforts in the northern half of the peninsula.

Another attempt to build a mission in southeastern Florida took place nearly 150 years after the establishment of St. Augustine. Because it was in Spain's best interest to

maintain control along the Florida coastline and alliances with the native groups inhabiting the coast, a missionary effort was supported in the Biscayne Bay area (Parks 1982:55–65). Father Joseph María Monaco and Joseph Xavier Alaña were sent from Cuba in 1743, and arrived at a Native American village located at the mouth of the Miami River. The village did not appear any more receptive towards accepting Christianity than before. After Joseph Xavier Alaña conveyed this to the Governor of Cuba, the mission was closed, and the fort they had erected was destroyed to prevent its fall into hostile hands (Parks 1982:55–65). Although the Spanish were resigned to the fact that missionization and settlement of southern Florida came at too high a price, they did strive to maintain good relations with the various native peoples who inhabited in the area.

The Ais population along the Indian River suffered a sharp decline in the early eighteenth century. One main reason for this decline is undoubtedly diseases introduced by Europeans. Another significant factor is related to the destruction of the Spanish mission system in northern Florida. The removal of this protective barrier allowed Creeks, Yamassee and other English-armed Indians uncontested access to almost all of Florida. The "English Indians" made frequent raids deep into southern Florida, killing many and carrying even more to Charleston where they were sold to the English as slaves (Hann 1991). By the time of the 1715 Spanish treasure fleet wreck, the Ais were barely in evidence. At this time, the Spanish encountered a small fishing party of Ais, and traded for insignificant amounts of fish and game (Dickel 1992). Because the drastically-reduced Ais population could offer little help to the treasure fleet wreck survivors, the governor at St. Augustine sent mission Yamassee and possibly Guali to forage for them (Burgess and Clausen 1982:46–57).

After this point, the Ais, like the Jobe and Jeaga to their south, largely disappear from recorded history. It is likely that they were virtually extinct or at least well on the way to extinction by the time the British took possession of Florida in 1763. Although Swanton (1946:85) suggests that the Ais may have taken refuge in southern Florida or fled to Cuba when the Spanish ceded Florida to Britain, to date no documents have been identified which specifically mention any people called "Ais" during this period.

By the beginning of the eighteenth century, the Native American population of Florida, including southern Florida, had declined considerably as a result of disease, slave raids, intertribal warfare, and attacks from English-aided Creek, and other, Indians (Wright 1986:218; Tebeau 1966:37; Steele 1992:11). In 1740, Gen. James Oglethorpe, with the aid of Creek warriors from several different towns, led an attack on St. Augustine (Tebeau 1971:68; Steele 1992:11). Shortly after this attack, Cowkeeper, the Oconee chief, led 130 families from the Hitchiti-speaking, Lower Creek towns of Apalachicola, Chiaha, Oconee, and Sawokli to Payne's Prairie, just south of the present-day town of Gainesville (Swanton 1946; Steele 1992:11).

The next significant migration of Creeks into the largely depopulated Florida peninsula occurred after 1755. Two new settlements of Lower Creeks were established at Tallahassee and the southwestern corner of Lake Miccosukki, in present-day Jefferson

County. Hitchiti was the main language spoken at these new settlements and eventually, the terms "Hitchiti" and "Mikasuki" became synonymous for the same language and/or peoples who spoke this language (Swanton 1946; Steele 1992:12; Tiger and Kersey 2002:7). The Alachua band, led by Cowkeeper and his descendents, eventually came to be known as "Seminoles." Unless directly affected, the Seminoles were usually indifferent to British and early United States politics, preferring to deal with these nations either not at all, or on their own terms instead of as part of the Creek confederacy (Steele 1992:11–16).

Throughout the second half of the eighteenth century, Lower Creek settlement of northern Florida increased. Eventually, at least one band of Muscogee-speaking Upper Creeks also immigrated to Florida. Their main settlement was north of modern-day Tampa at Chuckachatti, also known as New Eufala, among other names. This town was established sometime in the 1760s. Upper Creeks made additional migrations to Florida during and after the American Revolution. These migrations were due to several factors, including the expansion of white settlement, farming, and hunting in Georgia, as well as the allure provided by the prosperity of the Alachua Seminoles (Weisman 1989:69–74; Steele 1992:16–21).

By the 1790s, the town of Mickasuky and the adjacent villages had become a center of pro-British, anti-U.S. activities. Hitchiti-speaking Lower Creeks, Muscogee-speaking Upper Creeks, and escaped black slaves all found haven at this settlement. The growing threat posed to the U.S. by this town led to its destruction by U.S. forces in 1818 (Steele in Pepe, Steele, and Carr 1998:65).

During the eighteenth century, Cuban fishermen had established seasonal fishing camps or ranchos along the Gulf coast. These fishermen were engaged in catching mullet and drying them for sale in the Havana markets. By the early nineteenth century, Native Americans were often employed as workers in these "ranchos pescados," which is probably why they were called "Spanish Indians" in Anglo-American documents (Wright 1986:219). The origins and ethnicity of these "Spanish Indians" is not clear and has been a matter of considerable historical debate.

In 1803, Georgia native John H. McIntosh received a land grant from the Spanish Crown for present-day Merritt Island, with the intent to move his family and 250 slaves there. McIntosh never made it to the island, sending in his place a man named Merritt. Merritt laid out a large citrus grove on the island (Historic Property Associates, Inc. 1991:4-5).

The relatively small numbers of Native Americans in Florida at the end of the eighteenth century were increased dramatically as a result of the Creek Rebellion of 1813–1814. This rebellion was part of a larger nativisitic movement that swept through the Southeast in the first two decades of the nineteenth century. Its main proponent was the great Shawnee leader, Tecumseh.

Tecumseh organized many Creek, and other native towns in the Southeast, against the encroachment of white civilization and culture. He taught that the white invaders could

be driven away through a combination of intertribal solidarity and a return to native religion and culture. Among the Creeks, his teachings were adhered to most strongly among the mostly Muscogee-speaking Upper Creeks, although a few mostly Hitchiti/Mikasuki-speaking Lower Creek towns also were converted. Creek adherents of this movement were known by Anglo-Americans as "Red Sticks."

The Red Sticks rose up in rebellion against white settlements, mostly in Alabama and Georgia, during 1813 and 1814. The rebellion was eventually crushed by a combination of U.S. troops and pro-U.S. Cherokee under the command of General Andrew Jackson at the Battle of Horseshoe Bend in March of 1814. More Native Americans died in this battle than any other in the history of the United States. This defeat and the harsh conditions Jackson forced on the Creeks through the subsequent Treaty of Fort Jackson led to a massive migration of Creek refugees into Florida. It is safe to say that by 1820, two-thirds of the native population of Florida consisted of recent refugees of the Creek War, many of whom were Red Sticks with strong anti-U.S. sentiments (Martin 1991; Steele in Pepe, Steele, and Carr 1998 51–53).

By the end of the eighteenth century, the Seminoles had become the dominant Native American group in the state. Groups of fugitive African-American slaves also had settled among the Seminoles by the early nineteenth century (Brown 1991:5–19). Armed conflict with pioneers, homesteaders, and eventually the United States Army resulted in the removal of most of the Seminoles from Florida. This action forced the withdrawal of the remaining Seminole population to the harsh environment of the Everglades and Big Cypress Swamp by the late nineteenth century.

The Territorial and Statehood Period (1821–1860)

In 1821, after several years of negotiations with Spain, the U.S. acquired Florida as a territory. The population of the territory at that time was still centered in the northern areas around Pensacola, St. Augustine, and Tallahassee, although by the mid-1820s a few scattered plantations were recorded on the southwest Gulf Coast, as far south as Marco Island. These plantations generally were owned by European-American settlers and employed Native Americans and escaped slaves (Tebeau 1966:33–34).

Although generally indifferent to the United States, after the Creek War, the original Alachua band of Seminoles soon found themselves outnumbered by strongly anti-U.S. Creeks. Some of these dissidents spoke Hitchiti/Mickasuky, whereas others spoke Muscogee. However, by 1828, it seems that many Anglo-Americans had come to call all dissident native groups in Florida "Mickasuky," regardless of the language spoken (Steele in Pepe, Steele and Carr 1998:65). On the other hand, many Anglo-Americans began, or continued, to call all Native Americans in Florida by the term Seminoles, no matter their origins, native language, or political leanings.

As more European-American settlers moved into the region, conflicts arose with the Seminoles over available land. Pressure was brought to bear upon the government to remove the Seminoles from northern Florida and relocate them farther south. The Treaty

of Moultrie Creek (1823) restricted the Seminole people to approximately four million acres of land in the middle of the state, running south from Micanopy to just north of the Peace River (Mahon 1967:Rear foldout map). This treaty was unpopular with the Seminoles, as they were reluctant to move from their established homes to an area they felt could not be cultivated. Equally unpopular were the later treaties of Payne's Landing (1832) and Fort Gibson (1833), which called for Seminole emigration to the western territories (Mahon 1967:75–76, 82–83). These treaties fostered Seminole resentment of settlers that would culminate in the Second Seminole War in 1835.

Mosquito Inlet provided a safe harbor and access to rich hammock lands for ambitious pioneers during the 1820s. The most notable newcomer to the Brevard County area was Thomas H. Dummett and his family. Dummett's oldest son, Douglas, introduced a new industry to the Indian River area when he planted large stands of citrus trees (Eriksen 1994:31). The Dummetts observed many wild citrus trees when they first settled, most of them having been spread by Native Americans and early Spanish settlers. Some, however, were the organized effort of Turnbull's colonists at New Smyrna during the British occupation (Rouse 1951:265–273). Through experimentation with grafting, along with the mild lagoon climate, Dummett's groves were able to survive the record-setting 1835 freeze that killed groves throughout the territory (Eriksen 1994:31). By 1865, Dummett's Indian River oranges were world famous. He began sharing his grafting and cultivation technology with many of the post-war settlers in the Indian River area and, by the late 1800s, his techniques had spread southward along the Indian River Lagoon. No individual has provided Brevard County with a more long-lasting and profitable enterprise (Eriksen 1994:33).

During the Second Seminole War, the area around Lake Tohopekaliga was a Seminole stronghold. They kept their cattle in the woods around the lake and retreated into the cypress swamp west of the lake at any approach of soldiers (Mahon 1967; Sprague 1964). Tohopekaliga means "Fort Site" and the lake was so named because the islands within the lake housed the forts and stockades of the Seminoles (Moore-Willson 1935:29).

In January of 1837, General Jesup's men encountered the Seminoles near the "Great Cypress Swamp." The soldiers drove the Indians into the swamp, across the "Hatcheelusteell" and into even more dense swamp (Sprague 1964:172). On January 28th, the army "moved forward and occupied a strong position on Lake Tohopekaliga, within a few miles of the point at which the Cypress Swamp approaches it, where several hundred head of cattle were taken" (Sprague 1964:172). Hetherington (1980:3), citing Major Edward Keenan, a "noted authority on the Seminole Wars," believes that General Jesup's base camp was located near the present-day Kissimmee Airport. The "Great Cypress Swamp" and "Hatcheelusteell Creek" referred to by Sprague (1964) are now called Reedy Creek Swamp and Reedy Creek (MacKay and Blake 1839; Mahon 1967:Rear fold out map; USGS Lake Tohopekaliga Quadrangle Map 1953; Hetherington 1980:3).

In February 1837, Lt. Col. A. W. Fanning and his men were sent up the St. Johns River aboard the steamer *Santee* to search for the Seminole leader, King Philip. On February 8, 1837, Fanning and his men engaged the Seminoles in a small skirmish at Lake Monroe.

Captain Charles Mellon was killed in the fighting and 15 soldiers were wounded (Sprague 1964:189). Later, a fort was built on the site and named Fort Mellon in honor of the fallen officer.

Fort Mellon, located near present-day Sanford, was the principal military installation in the east central Florida area during the Second Seminole War. Other smaller installations included Fort Maitland near Lake Apopka; Fort Gatlin located between Lakes Mary, Jennie Jewel, and Gatlin; and Forts Lane, Christmas and Taylor along the western side of the St. Johns River (Mahon 1967). Orlando later developed around Fort Gatlin (Federal Writers' Project 1984:223). Although various stories exist, it is believed that the city was named after a Seminole War soldier, Orlando Reeves, who died near Lake Eola in 1835.

At the beginning of the Second Seminole War, the conflict was centered near the Withlacoochee region. In 1838, U.S. troops moved south to pursue the retreating Seminoles into the Lake Okeechobee and Everglades regions. Colonel Zachary Taylor was sent to the area between the Kissimmee River and Peace Creek. Colonel Persifor Smith and his volunteers were dispatched to the Caloosahatchee River, and U.S. Navy Lt. Levi N. Powell was assigned the task of penetrating the Everglades (Mahon 1967:219–220). Powell's detachment had several skirmishes with Seminole people near Jupiter Inlet. It is probable that these Seminoles were descendents of the original Alachua band of Seminoles (Steele in Pepe, Steele and Carr 1998:66). Powell established a depot on the Miami River and erected Fort Dallas in the approximate location of present-day downtown Miami. For three months, Fort Dallas was a base of operations as Powell led his men into the Everglades in search of the Seminoles (Gaby 1993:47).

The Second Seminole War had a deleterious effect on new settlement in Florida. To encourage settlement in the middle portion of the territory after the war, the Armed Occupation Act of 1842 offered settlers 160 acres of land at no cost, provided they built a house, cleared five acres, planted crops, and resided on the land for five years. Any head of a family, or single man over 18 years of age and able to bear arms, was eligible to receive a homestead. This act, plus the end of the Second Seminole War, created a small wave of immigration by Anglo-American pioneers to central Florida. Most of these immigrants were Anglo-American farmers and cattle ranchers, or "crackers," from the southeastern United States (Gaby 1993). In the early 1840s, a small group of pioneers settled in the areas around Lake Monroe, south of Econlockhatchee Creek and among the numerous lakes nearby.

Another result of the war was the creation of the Township and Range system when the first surveys of Florida began in 1835. Around this time, a trail linking military forts called the Hernandez Trail was opened and supply depots such as Fort Christmas and Fort Pierce were established (Eriksen 1994:28). A section of this trail ran through Brevard County approximately one half-mile west of present-day U.S. Highway 1. This trail, called the Hernandez Trail in honor of General Joseph Hernandez, was laid out in 1838 and extended for a distance of 25–30 miles from the Indian River to the headwaters of the St. Johns River.

An early steamboat, possibly the first to test the Indian River, was employed to transport troops south of Fort Pierce. Plans were suggested for a canal in place of the Haulover road, the ancient crossing of the Ais and Timucuan, to create a direct water route from Mosquito Lagoon to the Indian River Lagoon (Eriksen 1994:28).

In 1842, Aaron Jernigan, a cattleman from Georgia, took advantage of the Armed Occupation Act and settled in the vicinity of Fort Gatlin. He acquired 1,200 acres of land on the west and north sides of Lake Holden (Bacon 1975:3). When the army abandoned Fort Gatlin in 1848, Jernigan built a small stockade near his homestead on the west side of Lake Holden as a measure of protection for his family and other settlers in the region. The small settlement that grew around his homestead was eventually called Jernigan. On May 30, 1850, a post office was established at the settlement (Federal Writers' Project 1984:223–224).

The rapid growth of population in Central Florida created the need for smaller political jurisdictions. In 1845, the same year that Florida was admitted into the Union, the poorly conceived name of Mosquito County was changed to Orange County. New boundaries were established to encompass present-day Seminole and Volusia counties and parts of Brevard, Flagler, and Lake counties (Historic Property Associates, Inc. 1995). In 1850, the population of the area that would later become Brevard County stood at 139. At the time of the census, the area was part of St. Lucie County, and in 1851, it became a part of Volusia County. On January 6, 1855, that portion of land stretching along the coast became Brevard County (Horton n.d.).

During the 1850s, settlers in Central and South Florida were plagued with periodic attacks by the remaining Seminoles. These outbreaks of hostility forced many of the new residents to leave their farms and dissuaded others from establishing homesteads. By 1858, the Seminoles no longer resided in Central Florida and settlers began to immigrate to the area in appreciable numbers. Steamboats flourished along the St. Johns River and a viable trade network was established. The site of old Fort Mellon became a trading post named Mellonville (Federal Writers' Project 1984:360).

Several decades prior to the Civil War, new settlers moved into the lands around Lake Apopka and the smaller lakes in the central portion of the county near Orlando. The settlements that were established during this time include Apopka, Beulah, Christmas, Oakland, Ocoee, Orlando, and Winter Garden (Historic Property Associates, Inc. 1995:3).

Around 1850, John R. Worthington built the first log house at the location of present-day downtown Orlando. The influx of new settlers in the region during this period cultivated an increased demand for manufactured goods. Worthington operated a trading post from his house to sell these new settlers the supplies they wanted, thereby becoming the first merchant in the Orlando area. Worthington had his merchandise hauled by ox-team from Mellonville on the St. Johns River, where it arrived by boat from Jacksonville. Worthington also operated a sawmill, grist mill, and cotton gin (Bacon 1975:10).

In December of 1855, the Third Seminole War erupted when Seminoles ambushed a small reconnaissance party commanded by Lieutenant George L. Harstuff near Fort Myers. Word of the massacre spread across the frontier, and the people of Volusia and Brevard Counties wanted to organize a mounted volunteer company for local protection. Their plans were still maturing when the Seminoles killed the Shine family near New Smyrna in December of 1856. However, the presence of the American military at the city of Enterprise and Fort Capron convinced the Seminoles to confine their forays to the settlements near the Everglades. The war finally ended in 1858 when Chief Billy Bowlegs and 164 of his followers agreed to move west. As others soon followed, only a remnant of the Seminole nation remained in hiding in the impenetrable Everglades (Schene 1976:62).

Civil War and Post War Period (1860–1898)

With the beginning of the Civil War, cattle were needed to help feed the Confederate Army. Herds from as far south as central Florida were driven to railheads near the Georgia border. However, cattle ranchers discovered they could sell their herds in Cuba for a greater profit and began dealing with blockade-runners. The Union attempted to stop all shipping from Florida ports, but blockade-runners were too abundant. Cattle ranchers from all over Florida drove their cattle to Punta Rassa to be shipped to Cuba for payment in Spanish gold. Jacob Summerlin, a successful cattle rancher from the Fort Meade area, gave up his contract with the Confederate government to supply cattle and in 1863 teamed up with James McKay from the Tampa area. McKay, a successful and daring blockade-runner, supplied the schooners and Summerlin the cattle. It is not known how many cattle were shipped from the port during the Civil War. However, after the war as cattle continued to be shipped, it is reported that in the decade between 1870 and 1879, more than 165,000 head were shipped (Grismer 1949). A study of pertinent historic sources indicates that events concerning the Second Seminole War, the Armed Occupation Act of 1842, and early cattle ranching, naval stores, and timber industries occurred within the west Orlando/Lake Buena Vista area. On the eastern coast, Mosquito Inlet became widely known as an opportune place to penetrate the blockade. After the goods were landed, they could be transported overland to interior locations, largely without interference from Union troops (Schene 1976:67).

Following the Civil War, the Homestead Acts of 1866 and 1876 provided additional incentive for settlers to come to the Orlando area. The Act of 1866 gave Union-loyal African-Americans and southerners the opportunity to receive 80-acre tracts in Florida and the other four public land states. Former Confederates, however, were ineligible to receive homesteads until the Act of 1876 (Tebeau 1971:266, 294).

Thomas H. Sanders, born in 1841, arrived at Merritt Island in Brevard County from Georgia in 1869 (Stone 1988:23). Sanders, who served in the 10th Georgia Regiment in the Confederate Army, donated land for a cemetery on the west side of Merritt Island near present-day SR 528 and the Canaveral Barge Canal (Wentworth 2000:55). Other early Merritt Island families included the LaRoches, Porchers, and Fields. James LaRoche and his seven sons moved to Merritt Island sometime prior to 1876, and they

planted large tracts of orange groves on the island. Edward Porcher and his wife Byrnina Peck were instrumental in the founding of St. Luke's Episcopal Church in Courtenay in 1879 (Stone 1988:23).

John R. and Samuel J. Field first visited Merritt Island in 1866, and they returned with their families two years later to settle Indianola. John Field homesteaded a tract of land along the current Field Manor Drive and established a plantation of citrus, sugar cane, tobacco, and vegetables. In 1881, he built a two-story house that is now listed in the *NRHP* as the J.R. Field Homestead, at 750 Field Manor Drive. This residence may be the oldest extant building on the island. Samuel Field homesteaded near present-day Indianola Drive, where he planted citrus, banana, and peach trees (Historic Property Associates, Inc. 1991:6).

Settlers who homesteaded the Indian River area during the late 1860s and 1870s relied on sailboats for supplies and outside contacts. However, by 1880, the population had grown so much that steamboat operators could make a profit. Between 1880 and 1899, more than 25 steamboat companies set up on the Indian River and brought dozens of steamers to Brevard County. The steamboat industry contributed much to the development of Brevard County by hauling finished lumber into the area for homes and transported the region's export crops to Titusville where they could then be moved by railroad to northern markets (Eriksen 1994:94–98).

In 1879–1880, George Barbour accompanied Senator Seth French on a tour of the southern and middle regions of Florida. Traveling by steamboat, the party made their way along the St. Johns River, arriving at Titusville and the Indian River. They visited Titusville, which at that time was county seat of Brevard County and was home to approximately 150 residents. At this time, there were 343 registered voters in Brevard County (Stone 1988:22). Rockledge, which derives its name from a formation of coquina rock along the shore, came into existence in 1873 and is the oldest resort town on the East Coast. At the time of Barbour and French's visit, it had approximately 140 residents (Barbour 1964:30–37). As travelers such as Barbour returned to the North praising Florida's climate and hunting and fishing resources, more people began to visit the region. Many of them returned to settle land and build homes and farms.

In the 1880s, interest in the resources of southern Florida increased due to people like Hamilton Disston and Henry B. Plant. By 1881, the State of Florida faced a financial crisis involving a title to public lands. On the eve of the Civil War, land had been pledged by the Internal Improvement Fund to underwrite railroad bonds. After the War, when the railroads failed, the land reverted to the State. Almost $1 million was needed by the state to pay in full the principal and accumulated interest on the debt, thereby giving clear title.

Disston, son of a wealthy Philadelphia industrialist, contracted with the State of Florida in two large land deals: the Disston Drainage Contract and the Disston Land Purchase. The Drainage Contract was an agreement between Disston and the State in which Disston and his associates agreed to drain and reclaim all overflow lands south of present day Orlando and east of the Peace River in exchange for one-half the acreage that could be

reclaimed and made fit for cultivation. Disston agreed to purchase Internal Improvement Fund Lands at $0.25 an acre to satisfy the indebtedness of the fund. A contract was signed on June 1, 1881 for the sale of 4,000,000 acres for the sum of $1 million, the estimated debt owed by the Improvement Fund. Disston was allowed to select tracts of land in lots of 10,000 acres, up to 3,500,000 acres. The remainder was to be selected in tracts of 640 acres (Davis 1938:206–207). Before he could fulfill his obligation, Disston sold half of this contract to a British concern, the Florida Land and Mortgage Company, headed by Sir Edward James Reed (Tischendorf 1954:123).

Disston changed Florida from a wilderness of swamps, heat, and mosquitoes into an area ripe for investment. This enabled Henry B. Plant to move forward with his plans to open the western coast of Florida with a railroad-steamship operation called the Jacksonville, Tampa & Key West Railway. Through the Plant Investment Company, he bought up defunct rail lines such as the Silver Springs, Ocala & Gulf Railroad, Florida Transit and Peninsular Railroad, South Florida Railroad, and Florida Southern Railroad to establish his operation (Mann 1983:68; Harner 1973:18–23). In 1902, Henry Plant sold all of his Florida holdings to the Atlantic Coast Line, which would become the backbone trunkline of the southeast (Mann 1983:68).

During 1881 and 1882, channels were dug between the lake systems to the north and the Kissimmee River (Tebeau 1971:288). The Atlantic and Gulf Coast Canal and Okeechobee Land Company was responsible for opening up Lake Okeechobee to the Gulf of Mexico by dredging a channel to the Caloosahatchee River. Disston and his associates received 1,652,711 acres of land under the Drainage Contract, although they probably never permanently drained more than 50,000 acres (Tebeau 1971:280). Drainage operations began and the Florida Land and Improvement Company and Kissimmee Land Company were formed to help fulfill the Drainage Contract (Hetherington 1980:6).

Private land claims between 1881 and 1883 were probably squatters acquiring the land on which they lived prior to the land transfers under the Disston Land Purchase contract. The flurry of land transfers recorded in the early 1880s was mainly the result of two factors: large influxes of people during and as a result of railroad construction, and the widespread unpopularity of the Disston Land Purchase and Drainage Contract. Many residents resented the $0.25 per acre that Disston paid under the land contract, as they were required to pay $1.25 per acre under the terms of the Homestead Act of 1876. Claims also were made that Disston was receiving title to lands that were not swamplands or wetlands (Tebeau 1971:278). Many residents bought up the higher, better-drained parcels of land for speculation, knowing that the surrounding wetlands and flatwoods would be deeded to Disston under the Land Purchase contract. Many hoped that their more desirable land purchases would increase in value.

In the early 1880s, railroads made the previously isolated area of central Florida accessible to tourists and prospective settlers. Many communities located in present-day Orange County began as "whistle stops" on the numerous rail lines constructed during the last two decades of the nineteenth century. The availability of vast expanses of cheap,

fertile land, combined with a subtropical climate and readily accessible fresh water, attracted thousands of settlers from the North. Orlando, Winter Garden, Winter Park, and Apopka came to be the dominant population centers while the surrounding areas were reserved for farm and grove land (Historic Property Associates, Inc. 1995).

In August 1881, at the same time Disston's companies were beginning their work, the legislature granted a state charter to the privately owned Florida Coast Line Canal & Transportation Company to construct a continuous waterway from the St. Johns River to Miami; the intracoastal channel would provide a sheltered, inland passage for shallow-draft vessels. The charter granted the company 3,840 acres of land for every mile of canal built. Construction began in 1883 on a 5-foot-deep, 50-foot-wide, intracoastal channel connecting coastal bays, rivers, and lakes (Buker 1975:117). Although the canal company dredged almost continuously from 1883 until the 268-mile channel was completed in 1912, the firm's waterway operations were never successful. While the channel was still under construction, the company faced a formidable challenge from competing transportation interests expanding into South Florida (Buker 1975:120).

Samuel Field became the first postmaster of Indianola, which was just south of Courtenay in Brevard County, in 1887. Mail was delivered twice a week by steamers traveling down the Indian River. The community was prosperous and had two stores, a church, a school, and a club house by the 1890s.

The historic plat maps for Township 23 South, Range 33 East (Florida Department of Environmental Protection [FDEP] 1845); Township 23 South, Range 34 East (FDEP 1852); Township 23 South, Range 35 East (FDEP 1846); Township 24 South, Range 35 East (1845); Township 24 South, Range 36 East (FDEP 1859); and Township 24 South, Range 37 East (FDEP 1859) were reviewed (Figure 4). No military forts, roads, encampments, battlefields, homesteads, or historical Native American villages or trails were located within a mile of the project study area.

A review of the Florida Department of Environmental Protection (FDEP) Tract Book Records (n.d.) indicates that settlement in the region began in the late nineteenth century and increased dramatically in the early years of the twentieth century. Much of the land in this area was purchased by the Florida Coast Line Canal and Transportation Company (Table 5).

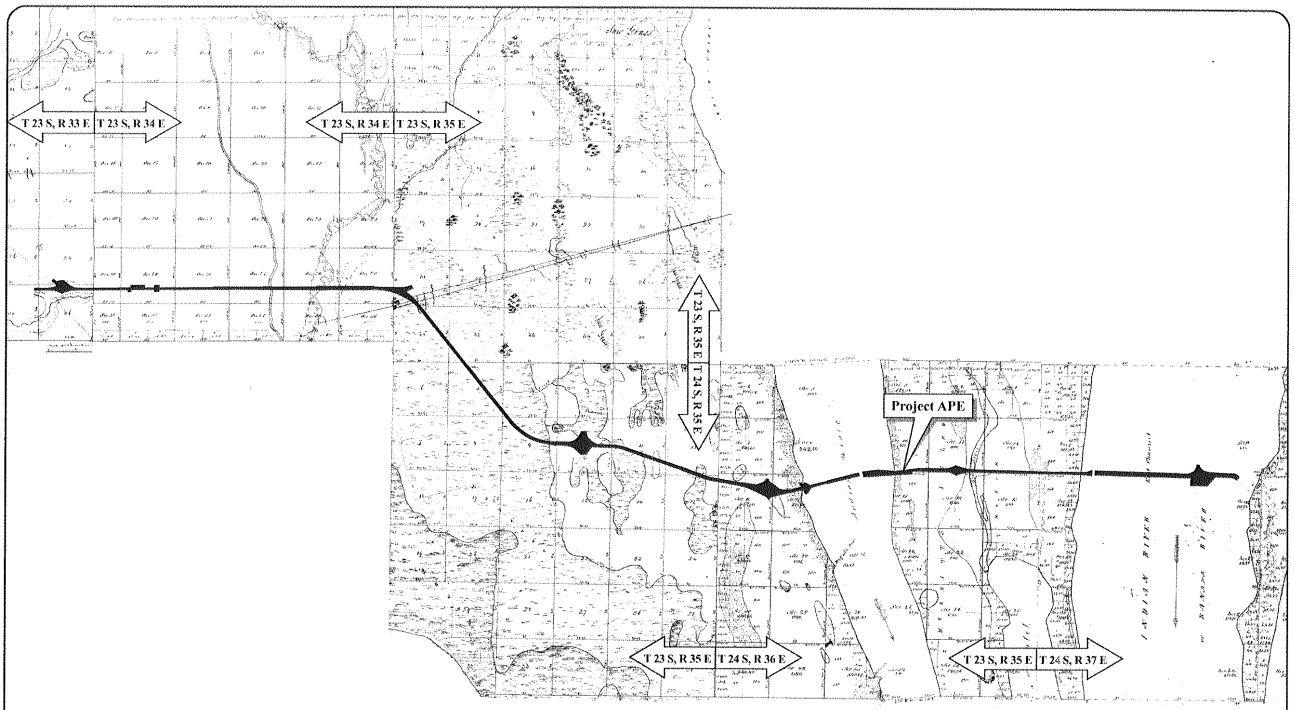

Figure 4: Project APE on the Historical Plat Maps for T 23 S, R 33 E (FDEP 1845); T 23 S, R 34 E (FDEP 1852); T 23 S, R 35 E (FDEP 1846); T 24 S, R 35 E (FDEP 1845); T 24 S, R 36 E (FDEP 1859); T 24 S, R 37 E (FDEP 1859)

Table 5: Historic Ownership of Land within the Project Study Area

Township 23 South, Range 33 East			
Location	**Portion Owned**	**Owner**	**Date of Deed**
Section 36	All	The Florida Southern Railway Co.	May 21, 1883
Township 23 South, Range 34 East			
Location	**Portion Owned**	**Owner**	**Date of Deed**
Section 26	NE ¼ of W ½ of Sec.	John C. Little & Daniel W. Monroe	August 29, 1903
	NW ¼ of SE ¼	Lela S. Stewart	October 2, 1926
	SW ¼ of SE ¼	Robert G. Hardee	June 3, 1891
	E ½ of SE ¼	Thomas E. Hardee	May 11, 1891
Section 27	All	John C. Little & Daniel W. Monroe	August 29, 1903
Section 28	All	Florida Coast Line Canal and Trans. Co.	December 1, 1906
Section 29	All	Florida Coast Line Canal and Trans. Co.	December 1, 1906
Section 30	All	Florida Coast Line Canal and Trans. Co.	December 1, 1906
Township 23 South, Range 35 East			
Location	**Portion Owned**	**Owner**	**Date of Deed**
Section 31	All	Florida Coast Line Canal and Trans. Co.	December 1, 1906
Township 24 South, Range 35 East			
Location	**Portion Owned**	**Owner**	**Date of Deed**
Section 5	All	Florida Coast Line Canal and Trans. Co.	December 1, 1906
Section 6	All	Florida Coast Line Canal and Trans. Co.	December 1, 1906
Section 8	All	Florida Coast Line Canal and Trans. Co.	December 1, 1906
Section 9	All	Florida Coast Line Canal and Trans. Co.	December 1, 1906
Section 10	All	Florida Coast Line Canal and Trans. Co.	December 1, 1906
Section 11	All	Florida Coast Line Canal and Trans. Co.	December 1, 1906
Section 12	All	Florida Coast Line Canal and Trans. Co.	December 1, 1906
Township 24 South, Range 36 East			
Location	**Portion Owned**	**Owner**	**Date of Deed**
Section 10	Lots 1,2,3 and 4	S. H. Sanders	November 30, 1878
	NE ¼	Stephen D. Geiger	July 15, 1889

Township 24 South, Range 36 East			
Location	**Location**	**Location**	**Location**
Section 10	SE ¼	William Cleveland	November 30, 1885
Section 11	E ½ of Section	Florida Coast Line Canal and Trans. Co.	December 1, 1906
	NW ¼	John R. Mist	October 25, 1888
	NE ¼ of SW ¼	Ezekiel Primer	May 4, 1922
	NW ¼ of SW ¼	Ezekiel Primer	May 4, 1922
	S ½ of SW ½	Halliese Halfern	January 5, 1911
Section 12	N ½ of NE ¼ & SW ¼ of NE ¼	William Doubles	May 4, 1922
	SE ¼ of NE ¼	John A. Young	April 22, 1891
	W ½ of Section & SW ½	Florida Coast Line Canal and Trans. Co.	December 1, 1906
Section 13	S ½ of NE ¼	Thomas W. Griffis	May 22, 1928
	NW ¼ of NE ¼	Raymond Kay Selline ET UX	June 19, 1959
	SW ¼ of NE ¼	John Healy	May 22, 1925
	SE ¼ of NW ¼	John Healy	May 22, 1925
	NW ¼ of NW ¼ & W ½ of NW ¼	Florida Coast Line Canal and Trans. Co.	December 1, 1906
	W ½ of SW ¼ & SE ¼ of SW ¼	Florida Coast Line Canal and Trans. Co.	December 1, 1906
	NE ¼ of SW ¼	John Healy	May 22, 1928
	NW ¼ of SE ¼	John Healy	May 22, 1928
	NE ¼ of SE ¼ & S ½ of SE ¼	Florida Coast Line Canal and Trans. Co.	December 1, 1906
Section 14	E ½ of NE ¼ & E ½ of SE ¼	Florida Coast Line Canal and Trans. Co.	December 1, 1906
	W ½ of NE ¼ & E ½ of NW ¼	John R. Field	December 30, 1888
	W ½ of NW ¼	Halliese Halfern	June 5, 1911
	NW ¼ of SW ¼	Leo W. Shugler	July 3, 1897
	SW ¼ of SW ¼	Pirkett F. Jardon	May 9, 1885
	E ½ of SW ¼	Loueland M. Francis	July 13, 1917
	W ½ of SE ¼	Samuel Field	October 30, 1885
Section 15	NE ¼ of NE ¼	William F. Smithie	October 15, 1887
	Lots 1, 2, 3 & 4 NW ¼ & SW ¼ of SE ¼	Samuel J. Field	July 16, 1895
	S ½ of NE ¼ and N ½ of SE ¼	John R. Field	August 25. 1882
	SE ¼ of SE ¼	Pirkett F. Jardon	May 9, 1885
Section 17	Lots 1&2 (on S ½ of NW ¼)	G.S. Hardee	December 23, 1867
	Lot 3 & E ½ of SW ¼	Adam S. Dixon	December 1, 1882
	W ½ of NW ¼	William P Moon	June 20, 1883
	W ½ of SW ¼	Edward A. Brown	November 22, 1897
Section 18	NE ¼	Franz Heim	April 26, 1917
	E ½ of NW ¼ & E ½ of SW ¼	James W. Packard	December 17. 1903
	W ½ of NW ¼	Gustave Stahl	May 12, 1889
	W ½ of SW ¼	Florida Coast Line Canal and Trans. Co.	December 1, 1906
	SE ¼	Johan Adam Bental	August 9, 1900

Township 24 South, Range 37 East			
Location	**Portion Owned**	**Owner**	**Date of Deed**
Section 7	Lot 1 of NE ¼ & N ½ of NW ¼	Robert Pankey	November 8, 1921
	Lots 2&3 SE ¼ of NW ¼ & NE ¼ of SW ¼	Frank A. Grassmaine	September 21, 1925
	SW ¼ of NW ¼ & W ½ of SW ¼	John A. Young	April 22, 1890
	SE ¼ of SW ¼ & Lot 4	Leonidas L. Kelly	October 29, 1915
Section 18	Lots 1 & 2	Leonidas L. Kelly	October 29, 1915
	NE ¼ of NW ¼	Charles Griffis	January 8, 1926
	W ½ of NW ¼, SE ¼ of NW ¼, NW ¼ of SW ¼	Nolan C. Whidden	October 20, 1926
	S ½ of SW ¼, NE ¼ of SW ¼ & Lot 4	Heirs of >>>>> May Girby	February 4, 1927
	Lot 3	John A. Henderson	February 13, 1893

Source: FDEP, no date.

In Brevard County, B. C. Willard built the first house in Cocoa, which was originally known as Indian River City, in 1881–1882. Canaveral, settled in 1856 by Wilson and Barnham, had 30 to 40 families residing there by 1875. Pineda was settled in after 1880 and was originally called Hartland. During the 1890s, the community of Melbourne Beach was developed, and the Beaujean family built a bathhouse and small push-car railroad to the beach. On the riverside, a substantial pier was built near present-day Ocean Avenue pier to lure tourists and visitors from Melbourne. Cocoa was incorporated in 1895 (Thomas 1983:7, 20).

The most influential developer of the eastern coast of Florida was Henry Morrison Flagler. A partner of John D. Rockefeller in the Standard Oil Company, he was already a wealthy man when he first visited Florida in 1878. During a visit in 1883, Flagler initiated his plans for an enterprise of new hotels and a railroad. His interest was first centered on the St. Augustine area, but he later expanded farther south. In February of 1893, Flagler's railroad arrived in Titusville, and by June of the same year, it was extended to Eau Gallie. By January of 1894, a person could travel the entire length of Brevard County by railroad (Tebeau 1971:284; Hellier 1965:261). The establishment of Flagler's railroad system marked the end of the steamboat era, although at least 25 Indian River steamboat companies came into existence after 1893 (Hopwood 1986:46).

In 1893, the South Florida Railroad was purchased by Henry B. Plant, partly as a means to move in on the territory of the Florida Southern Railroad, which was split in half and partially encircled by the South Florida Railroad. The Florida Southern Railroad was associated with the Jacksonville, Tampa & Key West (JTKW) System owned by Henry Flagler. As previously discussed, Plant had been buying up smaller, defunct rail lines to form his Savannah, Florida, and Western Railway System to compete with Flagler's JTKW System. After the JTKW System was dissolved and then bought by Plant on April 3, 1899, the Florida Southern Railroad Company, unable to compete by itself against Plant's railroad empire, sold to the Plant Investment Company that same year (Mann 1983:66-68).

Another important system was the Florida Midland Railroad, which was organized in 1883 and constructed through Apopka in 1886. By 1890, this railroad ran across Seminole, Orange, and Osceola counties. It ran north to south through Apopka, with the roadbed extending along Forest Avenue and curving off to the northeast near the Apopka Cemetery, and through communities such as Clarcona, Gotha, Ocoee, and Windermere (Historic Property Associates, Inc. 1995). The Florida Midland Railroad crossed the South Florida Railroad at the intersection of Forest Avenue and Eighth Street in Apopka. Supported by two railroad systems, Apopka was an important railroad head. In addition, its proximity to Orlando, which by 1890 had gained a reputation as the most significant shipping point for oranges in the state, made Apopka an important city in Orange County (Pettengill 1952:55, 85; Shofner 1982:71–74).

The Florida Midland Railroad went bankrupt in 1891 and was acquired five years later by Henry Plant's Savannah, Florida, and Western Railway System. The Tavares and Gulf Railroad, which had a long run as an independent line within Orange County, connected Tavares and Clermont in Lake County. This line extended east to Winter Garden in 1889 and reached Ocoee in 1913 (Historic Property Associates, Inc. 1995).

The railroad provided impetus to new commerce and trade. However, economic prosperity received a setback in December 1894 and February 1895 when Florida experienced two disastrous freezes that wiped out citrus and vegetable crops. Most of the groves along the Indian River were destroyed and some farmers never recovered and left the area.

The lumber industry also emerged as an important component of the local economy in the 1880s. Lumber was primarily used for buildings, railroad cross ties, and crates for citrus and vegetables. Small logging roads were extended into pine forests and by 1885, approximately 15 saw mills operated in northwestern Orange County, with many of those in Apopka. Amos Starbird operated one of the largest mills in the city, located at the junction of the Florida Midland Railroad and the Tavares, Orlando, and Atlantic Railroad. Starbird's mill later became the Consumer's Lumber and Veneer Company (Shofner 1982:100–101; Blackman 1927:156–157).

Citrus production was the main industry in the Orange County area until the winter of 1894-1895. During this period, the "Great Freeze" devastated many citrus crops causing many settlers to return to the north. Those that chose to stay and replant their groves slowly regained their prosperity in the citrus business. This catastrophe led to the decline in population from 12,584 in 1890 to 11,374 in 1900 (Robison and Andrews 1995:183). In Apopka, the bank closed and newspapers ceased publication as a result of the economic recession. Although the community was hailed in 1897 as the "Metropolis of West Orange," subdivision and construction activity remained lethargic, and it was nearly a decade before citrus trees produced at levels set in the early 1890s (Historic Property Associates, Inc. 1992:1, 8).

Spanish-American War Period/Turn-of-the-Century (1898–1916)

At the turn-of-the-century, Florida's history was marked by the outbreak of the Spanish-American War in 1898. As Florida is the closest state to Cuba, American troops were stationed and deployed from the state's coastal cities. Harbors in Tampa, Pensacola, and Key West were improved as ships were launched with troops and supplies. Although short in duration, "The Splendid Little War" left its mark in the form of improved harbors, expanded railroads, and military installations (Miller 1990).

In 1900, George Washington Hopkins purchased 104,000 acres in Brevard County for his lumbering operations, and his Union Cypress Mill was located south of Crane Creek (Kjerulft 1972:14–15).

In 1904, Governor Napoleon Bonaparte Broward initiated significant reforms in Florida politics. Several of Broward's major issues included the Everglades drainage project, railroad regulation, and the construction of roads. During this time, railroads were constructed throughout the state and automobile use became more prevalent. Improved transportation in the state opened lines to export Florida's agricultural and industrial products. Between 1900 and 1910, the state population increased from 528,542 residents to 752,619. The creation of St. Lucie and Palm Beach Counties is a testament to the increasing volume of people moving to the east coast of the state (Miller 1990).

Rapid and widespread growth was the theme of this period in Florida history. Thousands of miles of railroad tracks were laid including the Florida East Coast, Atlantic Coast Line, and Seaboard Air Line railroads. While agriculture, especially the citrus industry, was the backbone of the Florida economy, manufacturing and industry grew during the beginning of the century. Fertilizer production, boat building, and lumber and timber products were strong secondary industries (Weaver et al. 1996:3).

The Dixie Highway, which traveled along the west bank of Florida and eventually extended as far north as Ontario, Canada, reached Cocoa in 1915. This road allowed northerners easily to reach the warmer Florida climate during the winter tourist season. By 1920, Brevard County acquired many simple yet modern amenities, including the construction of water towers, sewer systems, and drainage districts involving systems of drainage canals and ditches. With the invention of the automobile and the subsequent development of a system for mass-production by Ford in 1913, George W. Hopkins, a resident of Eau Gallie, builder of the Union Cypress railroad and founder of the Union Cypress Company, became one of the first proponents of a dependable transportation route through western Brevard County. In 1916, Hopkins wrote to the county commissioners to advise them on the best route through his land for a highway to St. Cloud. His foresight established the route of the Melbourne-Kissimmee highway, although it would be many years before this highway was operable and open to the general public (Eriksen 1994:148–150).

During the first part of the twentieth century, Orange County reestablished itself as the dominant area of the citrus industry. By 1910, approximately 500,000 boxes of oranges

were shipped annually, making the county the state's leading citrus producer. The Florida Citrus Exchange was started in 1909 as a response to the growing industry. Exchanges also were established in communities such as Apopka, Ocoee, Orlando, Tildenville, Windermere, and Winter Garden. Numerous citrus and vegetable packinghouses dotted the area around these communities. (Historic Property Associates, Inc. 1995:6).

At this time, Orange County also began building numerous hard-paved roads. In 1910, the Board of County Commissioners initiated a bond issue for $1 million to construct brick roads. This bond was not approved by the county voters, but another bond for $600,000 was passed in 1913 that allowed for the construction of roads connecting Orlando to Oakland, Maitland, Christmas, and Taft, and connecting Windermere to Ocoee (Historic Property Associates, Inc. 1995:7).

World War I and Aftermath Period (1917–1920)

The World War I and Aftermath period of Florida's history began with the U.S. entry into World War I in 1917. Wartime activity required several training facilities to be set up throughout the state. Protecting the coastlines was a priority at this time. Although the conflict only lasted until November of 1918, the economy was boosted by the war, especially shipbuilding. The war brought industrialization to port cities such as Tampa and Jacksonville, where ships were built. These cities also functioned as supply depots and embarkation points. An indirect economic benefit of the war was an increase in agricultural production such as beef, vegetables, and cotton (Miller 1990).

While Florida industrialization and agriculture flourished, immigration and housing development slowed during the war. Tourism increased, due to the war in Europe, which forced Americans to vacation domestically. Railroad construction resumed at the conclusion of the war. Tycoons such as Henry Flagler and Henry Plant were building the hotels and railroads for people desiring winter vacations in sunny Florida. These magnates took an interest in the promotion of and improvements in Florida in an effort to bring in more tourist dollars (Miller 1990). The end of the war marked a slight increase in population, and Flagler and Okeechobee counties were created at this time.

The first wooden toll bridge connecting Merritt Island to the mainland in Broward County opened in 1917. This bridge linked the communities of Cocoa and Merritt, a town three miles south of Indianola, and spawned a significant amount of development on Merritt Island (Drake and Moss 1997:184). The population of Merritt Island grew to 1,018 by 1920. Bridge construction to Cocoa Beach began in 1920, and the first bridge across the Banana River was completed in 1922. This bridge was used heavily when the Cocoa Beach Casino opened later that year. Gus Edwards founded the City of Cocoa Beach in 1925, and the city commission held its first meeting at the casino (City of Cocoa Beach n.d.).

Florida Boom Period (1920–1930)

After World War I, Florida experienced unprecedented growth. Many people relocated to Florida during the war to work in wartime industries or were stationed in the state as soldiers. Bank deposits increased, real estate companies opened in many cities, and state and county road systems expanded quickly. Earlier land reclamation projects created thousands of new acres of land to be developed. Real estate activity increased steadily after the war's end and drove up property values. Prices on lots were inflated to appear more enticing to out-of-state buyers. Every city and town in Florida had new subdivisions platted and lots were selling and reselling for quick profits. Southeastern Florida, including cities such as Miami and Palm Beach, experienced the most activity, although the boom affected most communities in central and South Florida (Weaver et al. 1996:3).

The population in Orange County grew from 19,890 to 38,325 between 1920 and 1925, while the population of Apopka increased from 798 to 1,001 between the same years (Nolan 1984; United States Bureau of the Census 1930:210). Agricultural development included the expansion of citrus groves and the establishment of the ornamental fern industry (Historic Property Associates, Inc. 1995:17).

Road construction became a statewide concern as it shifted from a local to a state function. These new roads made even remote areas of the state accessible and allowed the boom to spread. Apparently, up to 20,000 people were arriving in the state on a daily basis. Besides the inexpensive property, Florida's legislative prohibition on income and inheritance taxes also encouraged more people to move to the state.

By 1920, Brevard County population had increased to more than 8,500, a 90 percent rise from the 1910 figure of 4,717 people. In the same year, Melbourne had a population of 533 people. The improved road system brought an ever-growing procession of tourists into the county, and many of these tourists stayed to reside there. Brevard County's increasing population and construction boom, which peaked in 1925, owed much to the promotional literature issued by government officials and private entrepreneurs. Any small town along the new highways provided a place to camp for the streams of tourists. One well-known campsite, the Midway Tourist Camp in Melbourne, maintained riverside cottages and tent/trailer spaces for approximately 800 guests (Eriksen 1994:163–164). Other developments included the surveying and incorporation of the Crane Creek Drainage District and Melbourne Tillman District. The Crane Creek Drainage District covered the lowlands west of Melbourne (Eriksen 1994:165).

Development in Orange County also reflected the intense growth of the period. During the land boom of the 1920s, rising property values in Orange County prompted the establishment of new subdivisions. New residential construction was occurring in the areas surrounding Lake Lucerne and Lake Cherokee. Indicative of the successful construction industry, building permits in Orlando during 1925 totaled $8.6 million (Robison and Andrews 1995:244). The influx of winter visitors, prospective land buyers, and success of the citrus industry created an atmosphere of development and expansion.

Large groves, busy packinghouses, and influential grove owners contributed to the economic boom that was pervasive in the area.

The Boom period began to decline in August 1925, when the Florida East Coast Railway placed an embargo on freight shipments to southern Florida. Ports and rail terminals were overflowing with unused building materials. In addition, northern newspapers published reports of fraudulent land deals in Florida. In 1926 and 1928, two hurricanes hit southeastern Florida killing hundreds of people and destroying thousands of buildings. The collapse of the real estate market and the subsequent hurricane damage effectively ended the boom in southern Florida (Weaver et al. 1996:4). Many South Florida residents fled northward into Brevard County (Eriksen 1994:173). The recession was made worse by the 1929 Mediterranean fruit fly infestation that devastated citrus groves throughout the state (Weaver et al. 1996:4).

Despite these problems, communities with oceanfront casinos flourished in Brevard County. During the late 1920s, several airports or "landing fields" were established in Melbourne, Cocoa, and Titusville, primarily for the use of planes in the airmail service (Eriksen 1994:164). In 1928, the airfield at Melbourne was chosen as the site of the county's first public airport. The choice was practical more than political; the Melbourne field was an ideal refueling spot for airmail flights, as it was midway between Jacksonville and Miami. At first, this airport was an open field with "MELBOURNE" painted on the roof of a nearby warehouse (Eriksen 1994:176).

By the time the stock market collapsed in 1929, Florida was already suffering from an economic depression. Construction activity halted and industry dramatically declined. Subdivisions platted several years earlier remained undeveloped and lots were occupied by partially finished buildings. While the national economy was in shock from the crash, however, Brevard County residents remained optimistic and did not seem to be immediately affected. In anticipation of an improved economy, local theater owners installed "phototone machines" in their movie houses so they could feature the first talking movies (Eriksen 1994:177).

Depression and New Deal Period (1930–1940)

As previously discussed, there were several causes for the economic depression in Florida, including the grossly inflated real estate market, the hurricanes, and fruit fly infestation. During the Great Depression, Florida suffered significantly. Between 1929 and 1933, 148 state and national banks collapsed, more than half of the state's teachers were owed back pay, and one in four residents was receiving public relief (Miller 1990).

As a result of hard economic times, President Franklin D. Roosevelt initiated several national relief programs. Important New Deal–era programs in Florida were the Civilian Conservation Corps (CCC), and the Civil Works Administration (CWA), later renamed the Works Progress Administration (WPA). The WPA provided jobs for professional workers and laborers, whose work included the construction or improvement of many roads, public buildings, parks, and airports in Florida. The CCC improved and preserved

forests, parks, and agricultural lands (Miller 1990). Projects in Orange County included platting of three new residential subdivisions and the construction of a new city hall and a municipal auditorium in Apopka, a fire station in Winter Garden, and a woman's club in Ocoee (Historic Property Associates, Inc. 1995:10). During the latter half of the 1930s, Orange County began to see an increase in citrus production, and was again the leading producer in the state.

In 1933, the CWA began construction of the Melbourne Eau Gallie Airport, presently known as the Melbourne Regional Airport. Melbourne had been granted the right to build an airport on its northern boundary with Eau Gallie by the Legislature in 1929, and the CWA provided the laborers needed to clear saw palmettos from the site to create a landing field. In 1935, Federal funding was received for the project, 10 acres were cleared and planted with grasses provided by local homeowners, and a small hanger was built and boundary lights were installed. The new facility was considered one of the better airports on Florida's eastern coast and the WPA formally dedicated the Melbourne airport in 1937. It continued to receive funding for improvements such as the new radio towers installed in 1938. Several years later, the Navy announced plans to invest $3 million in the airfield to create the Melbourne Naval Air Station (Eriksen 1994:184–189).

Most of the state's economy was affected by the Depression. Beef and citrus production declined, manufacturing slowed, and development projects were stopped. Even the railroad industry felt the pressures of the 1930s; service was greatly reduced and personnel were laid off. In addition, the increasing use of the automobile lessened the demand for travel by rail. Despite the Depression, tourism remained an integral part of the Florida economy during this period. New highways made automobile travel to Florida easy and affordable, and more middle-class families were able to vacation in the "Sunshine State" (Eriksen 1994, Miller 1990).

World War II and the Post-War Period (1940–1950)

From the end of the Great Depression until after the close of the post-war era, Florida's history was inextricably bound with World War II and its aftermath. It became one of the nation's major training grounds for the various military branches including the Army, Navy, and Air Force. Prior to this time, tourism had been the state's major industry and it was brought to a halt as tourist and civilian facilities, such as hotels and private homes, were placed into wartime service. The influx of thousands of service members and their families increased industrial and agricultural production in Florida, and also introduced these new residents to the warm weather and tropical beauty of Florida. Several ancillary battalions were stationed in Orange County during the war, including the 351st Coast Artillery Search Light Battalion and the 10th Anti-Aircraft Automatic Weapons Group (Tebeau 1971:416-419; Sanborn Map Company 1945; Shofner 1982:259-260). The Orlando municipal airport was converted into the Orlando Army Air Base. The Pine Castle Army Air Field also was established.

Railroads once again profited, since service members, military goods, and materials needed to be transported. However, airplanes were now becoming the new form of

transportation, and Florida became a major airline destination. The highway system also was being expanded at this time. The State Road Department constructed 1,560 miles of highway during the war era (Miller 1990).

In 1939, the Banana River Naval Air Station was constructed at Cape Canaveral because of the oncoming threat of war, therefore increasing the amount of traffic that came and went from the island. The bridge that was built in 1922 was in a state of disrepair and could no longer handle the growing amount of traffic, leading the State Road Department in 1940 to authorize dredging the causeway and installing a concrete bridge and steel span in the center. The dredging went along as scheduled, however, before the center span could be built, World War II broke out and steel was diverted to military purposes (*The Star-Advocate* 1980:42).

In October 1940, the county and city governments began to receive large sums of Federal money for road and airport improvements. Melbourne received more than $212,000 to expand its airport's administrative building and runways. In order to bolster defenses against German U-boat attacks in eastern Florida, the Navy selected Melbourne as the only likely site for a second air base in Brevard County and, in mid-1942, the Melbourne Eau Gallie Airport was converted into the Melbourne Naval Air Station. After $5 million expenditure for improvements, the Navy activated the installation on October 20, 1942. This installation was used as a training center where student pilots received on-the-ground experience in "Link trainers," and then practiced landings at runways west of Malabar and Valkaria (Eriksen 1994:193–199).

At the conclusion of World War II, Florida's economy was almost fully recovered. Tourism quickly rebounded and became the major source of the state's economy. Additionally, former military personnel found the local climate amiable and remained in Florida permanently after the war. These new residents greatly increased the population in the 1940s.

In 1945, the US Congress approved the construction of Port Canaveral, as part of the Rivers and Harbors Improvement Program. With the proviso that the funds be matched locally, Congress appropriated $830,000 for the construction of the port. On December 1, 1947, the Canaveral Port Authority issued $1,365,999 in bonds for the construction of the harbor, channel, and barge canal (Canaveral Port Authority 2003:2-3).

Modern Period (1950–Present)

A dredge began cutting a path east from the middle of the Indian River to the Port Canaveral site on June 6, 1950. Most of the dredged soil was used to construct the Bennett Causeway, which was dedicated in 1963 (Canaveral Port Authority 2003:3). Port Canaveral was dedicated on November 4, 1953. Colonel Noah Butt, former speaker of the Florida House of Representatives, was the Chairman of the Canaveral Port Authority, and Senator Spessard L. Holland was the speaker. The USS McClelland (DE750) was moored at the west marginal wharf for an open house (Community Educators Credit Union 2003). The Canaveral Lock at the port was dedicated over a decade later, in 1965.

Following World War II, many people stationed nearby remained in Orange County, and the area experienced a population increase at that time. Subsequently, the county experienced a post-war economic boom as large numbers of people began seeking permanent residence. As veterans resided in the area in the late 1940s and early 1950s, new housing focused on the development of masonry tract homes in new subdivisions on land that had once been the outskirts of Orlando.

The 1956 Highway Act initiated a plan for 41,500 miles of interstate highway throughout the country. Interstate 4, which was constructed in the late-1950s and early-1960s, was part of the plan. Completed in 1965, it passed through downtown Orlando, connecting Tampa to Daytona. I-4 quickly served as the beltway across central Florida, providing access to both coasts and many tourist attractions. After Walt Disney World opened in 1971, growth and development along I-4 exploded. Between 1960 and 1980, Orange County's population increased by 80 percent.

The first section of the Martin Andersen Beeline Expressway, running from the site of the McCoy Jetport (present-day Orlando International Airport) to SR 520, opened in 1967 (*Orlando Sentinel* n.d.[1967]). The Beeline Expressway, along with the East-West Expressway in Orlando, was intended to be completed by the opening of Walt Disney World in Orlando in 1971 (*Orlando Sentinel* n.d.[1968]). The 1967 Florida legislature approved $93 million in bonds to finance the extension of the Beeline Expressway and widen the Bennett Causeway, which runs between Port Canaveral and Merritt Island. Construction on the expressway was delayed due to a number of reasons, including fiscal inflation, local politics, changes to the state constitution, governmental reorganization, and infringement on the habitat of the dusky seaside sparrow. An additional $33 million in bonds was raised to construct the eastern extension to the Bennett Causeway, which was completed in 1974 (Shofner 2001:46-47).

Prehistoric and Historic Context from the 1990 *CRAS of the Proposed Magnolia Ranch Development Site, Orange County, Florida*

BACKGROUND RESEARCH

This section provides background information on the prehistory and history of the region that includes the Magnolia Ranch project site.

Cultural Prehistory

Aboriginal peoples have inhabited Florida for at least 14,000 years. The earliest cultural stages are pan-Florida in extent while later cultures exhibited differing cultural traits in the various archaeological areas of the state. Jerald Milanich and Charles Fairbanks (1980:Table 1 and Table 2) have synthesized the earlier work of John Goggin (1947, 1949, 1952), Irving Rouse (1951), Ripley Bullen (1972), and others in East and Central Florida. Their chronology will be followed in this brief overview, augmented with new information from a recent synthesis by Russo (1988, 1989). This prehistoric overview will serve as a framework for understanding and evaluating any sites located by the survey.

The Magnolia Ranch development site is located in the East and Central Lakes archaeological region (Figure 2) as defined by Milanich and Fairbanks (1980:22). The area was occupied prehistorically by aboriginal groups sharing similar customs, traditions and technologies. Although regional variations in cultural practices existed, there are enough similarities between these different groups to enable archaeologists to classify the region as a single area (Russo 1989a).

The East and Central Lakes archaeological region extends from the St. Mary's River on the north to the vicinity of Vero Beach on the Atlantic Coast, and includes the St. Johns River drainage system and most of the coastal lagoon. Although the southern interior boundary is rather vague, recent investigations (Austin and Piper 1986) suggest that it is north of Lake Arbuckle in the vicinity of east-central Polk County.

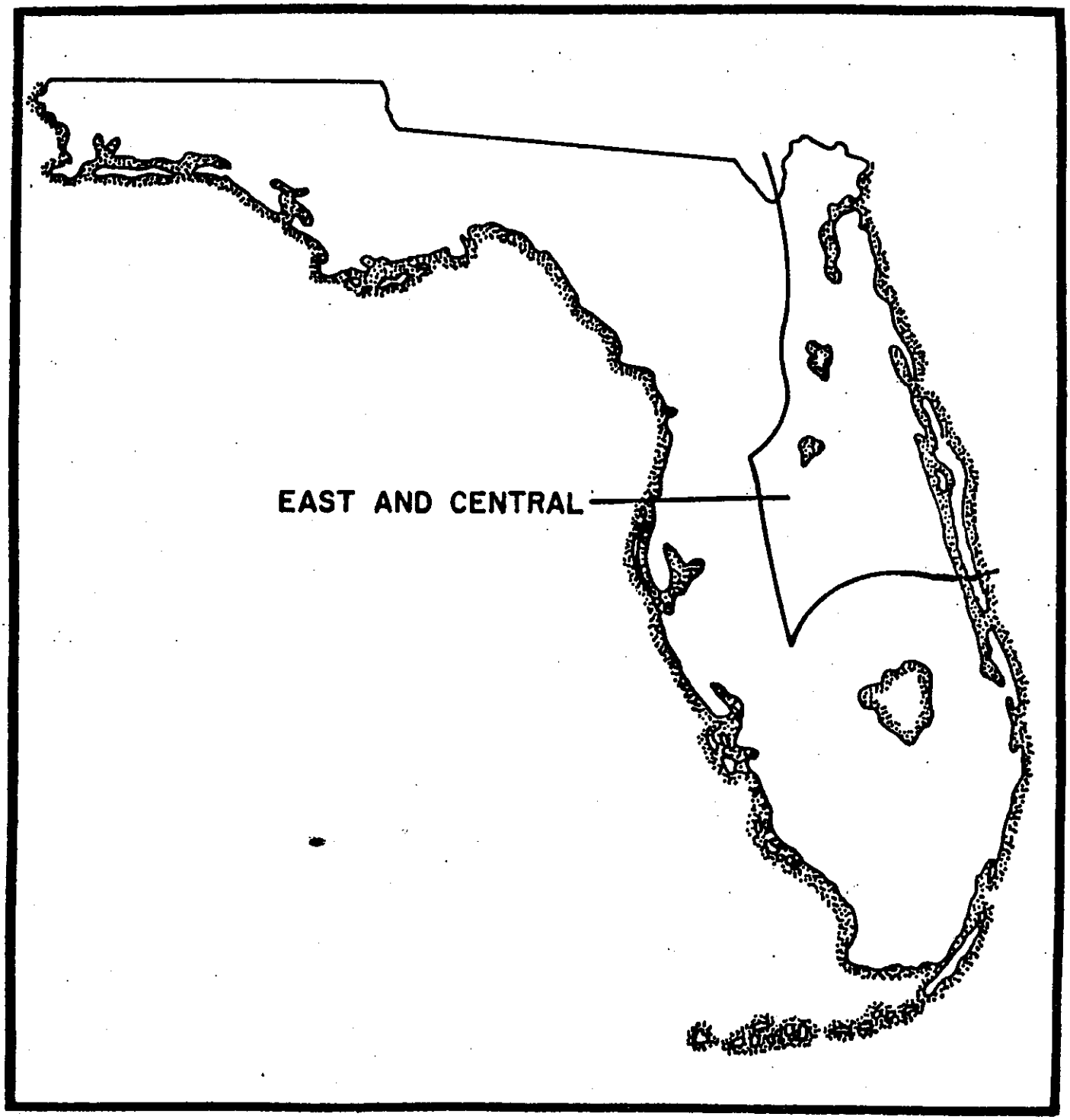

Figure 2: Map of the East and Central Lakes Archaeological region (after Milanich and Fairbanks 1980:22).

Paleo-Indian Stage

The earliest stage of prehistoric cultural development, the Paleo-Indian, dates from the time humans first arrived in Florida until about 6500 B.C. The climate of the region was cooler and drier than at present and the level of the sea was as much as 35 meters (115.5 feet) lower (Milanich and Fairbanks 1980:37). The greatest density of known Paleo-Indian sites in Florida is associated with rivers in the north-central part of the state, although rising sea levels have probably inundated early coastal sites making their discovery difficult (Rouse 1951:21-30; Scholl et al. 1969; Ruppe 1980).

The prevailing view of Paleo-Indian existence, based on the uniformity of the known tool kit and the small size of many of the known sites, is that of a nomadic lifestyle with subsistence activities based on hunting and gathering (Milanich and Fairbanks 1980:35-42). Recent excavations in Hillsborough County, however, have contributed to the development of increasingly sophisticated models of early hunter-gatherer settlement (e.g. Daniel 1985; Chance 1983) which take into account the adaptive responses of human populations to both short and long term environmental change. These models suggest that some Paleo-Indian groups may have practiced a more sedentary lifestyle than had previously been believed (Daniel 1985:264).

Two controversial early aboriginal sites are located on the coastal strand southeast of the project area, 8-Ir-9 in Vero Beach and 8-Br-44 in Melbourne. At both sites human remains were reported in association with the bones of extinct Pleistocene animals (Gidley and Loomis 1926; Sellards 1940), but the association was disputed by Hrdlicka (1907, 1918) and later by Rouse (1950, 1951:223) who felt the human remains were intrusive into the Pleistocene stratum. More recent examination of the human crania (Stewart in Milanich and Fairbanks 1980:5) and comparisons with those from the Warm Mineral Springs site in Sarasota County seem to support a Paleo-Indian period date for the Vero and Melbourne finds

(Cockrell and Murphy 1978:7-8), although a final determination cannot as yet be made.

One Paleo-Indian site has been excavated in the region. A Paleo-Indian tool assemblage including lanceolate-shaped projectile points has been recovered from the Lake Hell 'n Blazes site located near the headwaters of the St. Johns River (Edwards 1954). Isolated finds of lanceolate-shaped projectile points have been reported in the region including a Suwanee projectile point recovered during dredging of Soldiers Creek in Seminole County (Stewart and Dreves 1980).

The relative lack of Paleo-Indian sites in East Central Florida has been linked to environmental constraints imposed by a lower sea level and drier climate, or to subsequent rising sea levels that may have inundated or destroyed early coastal sites.

Archaic Stage

The Archaic stage of cultural development was characterized by a shift in adaptive strategies stimulated by the onset of the Holocene and the establishment of increasingly modern climate and biota. It is generally believed to have begun in Florida around 6500 B.C. (Milanich and Fairbanks 1980:48). This stage is further characterized by an efficient, seasonal exploitation of a wider range of food resources including deer and other small game, hardwood nuts, and mollusks, and a larger but less carefully worked tool kit. Archaic Indian groups are thought to have utilized a more restricted territory than their Paleo-Indian predecessors, with some groups leading at least a semi-sedentary existence. Archaic site types include base camps, hunting camps, butchering sites, quarries, and cemeteries. An early Archaic component is present at the Zellwood site on the shore of Lake Apopka (Dreves 1974) and at the Nalcrest site at Lake Weohyakapka in Polk County (Bullen and Beilman 1973).

An important early Archaic site in East-Central Florida is the Windover site near Titusville in Brevard County. This site

consists of a prehistoric cemetery in a small pond and is the most thoroughly excavated early site in East-Central Florida. In addition to well preserved human remains, normally perishable items of bone, wood, shell and fabric were also preserved. Radiocarbon dates indicate that the interments were made approximately 8000 years ago (Doran and Dickel 1988).

Mount Taylor Phase: By 4000 B.C. Archaic hunter/gatherers were spending much of the year in villages along the St. Johns River and its tributaries. This phase of Archaic development, known as the Mount Taylor phase after the type site in Volusia County (Goggin 1952), is characterized by the dietary importance of freshwater snails (Cumbaa 1976), and the use of stemmed projectile points with triangular blades, as well as bone points and tools. Excavations at the Tick Island site, also in Volusia County, revealed a mass burial in a midden perhaps associated with a charnel house, an early instance of such a burial pattern (Jahn and Bullen 1978). The Hunter's Creek site in Orange County, is an important Archaic period site located near the project area (Stewart 1987).

Recent surveys and excavations suggest that middle Archaic peoples were also exploiting coastal resources to a greater degree than previously believed (Ste. Claire 1989). The Gautier site, a village and cemetery complex near Cocoa Beach in Brevard County probably represents a long term occupation during the Middle and Late Archaic periods (Carr 1981; Sigler-Eisenberg 1984).

Orange Phase: The introduction of a crude fiber-tempered pottery into the artifact assemblage of the Archaic aboriginals marks the beginning of the Orange phase around 2000 B.C. The tool assemblage of the Orange phase resembles that of the Mount Taylor phase with the addition of pottery and evidence of basketry and matting as seen in the impressions on clay pot bottoms (Milanich and Fairbanks 1980:155).

The basic hunting-foraging subsistence pattern of the Archaic stage continued, with a shift to marine shellfish occurring as the snail beds were gradually depleted. By Orange III times,

ca. 1450-1250 B.C., occupation of the Atlantic Coastal strand had increased significantly and this shift in prehistoric settlement and subsistence strategies is documented at the Summer Haven site in St. Johns County and the Cotten site in Volusia County (Bullen and Bullen 1961; Bullen 1972; Griffin and Smith 1954). Other sites containing an Orange component include the Duda Ranch Mound, Bluffton and Sunday Bluff sites along the St. Johns River (Knoderer 1972; Bullen 1955, 1969, 1972), and the Alexander Springs Midden, Silver Glen Springs site and Aston Midden in the interior (FMSF).

Formative Stage

During the late Orange phase, also known as the Florida Transitional Period (1200-500 B.C.), changes in pottery and technology occurred in Florida which mark the beginning of the Formative Stage. A decline in the use of fibers and an increase in the use of sand as a tempering agent in ceramics occurred during this period. The temperless St. Johns ceramic series also begins to appear at this time, and three different projectile point styles, basally-notched, corner-notched, and stemmed, all occur in relatively contemporaneous contexts. This profusion of ceramic and tool traditions is suggestive of population movement and social interaction between culture areas. Other changes include the possible utilization of cultigens (Milanich and Fairbanks 1980:155).

St. Johns Culture Sequence: Milanich and Fairbanks (1980:20) state that "The Formative Stage, denoting a beginning of formal, settled communities, with the gradual development of more complex forms of political and religious community organization, is marked by a great deal more regional diversity than the earlier stages". This regional diversity, due primarily to local adaptation to varied ecological conditions within the state, has traditionally been described in terms of cultural periods based on variations in ceramic types. The ceramic tradition for Central and East Florida is known as the St. Johns cultural tradition and is divided into

the following periods: St. Johns I (500 B.C.-A.D. 100), St. Johns Ia (A.D. 100-500), St. Johns Ib (A.D. 500-800), St. Johns IIa (A.D. 800-1300), St. John's IIb (A.D. 1300-1513), and St. John's IIc (A.D. 1513-1565).

It has been assumed that the basic settlement and subsistence pattern of seasonal movement between the coast and river valley established during the Orange phase continued during the early St. Johns period. Oysters, thought to be newly abundant in the coastal lagoons because of rising sea levels, joined coquinas as a major dietary staple during St. Johns I times. However, recent excavations at the Edgewater Landings sites by Russo et al. (1989) suggest that St. Johns peoples may have inhabited the coast on a more permanent basis. Limited horticulture is also assumed (Milanich and Fairbanks 1980:157-160; Martinez 1977:15), but as Russo (1989:109) notes, there is no convincing evidence for prehistoric agriculture in East-Central Florida despite concerted attempts to look for it.

Low burial mounds appear for the first time during St. Johns I. The pottery is the temperless St. Johns ware, both plain and incised, constructed by the coil method. The presence of ceramics diagnostic of the Deptford culture indicates interaction with contemporaneous groups living on the west coast.

The St. Johns Ia period is marked by the appearance of Hopewellian-Yent objects in burial mounds. St. Johns Plain and Dunns Creek Red are common pottery types with Swift Creek ceramic attributes replacing Deptford ones toward the end of the period. Excavations at the Ross Hammock mound in Volusia County provided information on mound construction and burial practices (Bullen et al. 1967).

Interaction with Weeden Island cultures to the northwest during the St. Johns Ib period is apparent from the occurrence of Weeden Island pottery in burial mounds. Village pottery appears to be limited to St. Johns plain ware although few village sites have been excavated.

The diagnostic marker for the St. Johns IIa period is

St. Johns check-stamped pottery. Burial mounds are common and the most extensive occupation of the coastal lagoons occurred during this time. Continued interaction with the Weeden Island cultures is evidenced by late Weeden Island pottery types and/or copies recovered from some mounds (Rouse 1951:254; Milanich and Fairbanks 1980:148, 159). Excavated sites of this period include the Walker Point Mound in Nassau County (Hemmings and Deagan 1973) and the Grant Mound (Benton 1981). The latter site has added significantly to our knowledge of burial ceremonialism and village life during this time.

St. Johns IIb, the late prehistoric period, is characterized by the appearance of some southeastern Mississippian traits, presumably resulting from socio-religious interaction with the Ft. Walton and Safety Harbor cultures of Florida. Large ceremonial sites, such as the Mt. Royal, Shields and Thursby mounds, located along the St. Johns River were excavated by C.B. Moore (1894a, 1894b) in the 1890's and subsequently interpreted by Goggin (1952). Habitation sites dating to this period have been reported near Lake Mizell (Swindell et al. 1977). The use of St. Johns check-stamped pottery continued with trade wares and Southern Cult objects occurring in mounds.

St. Johns IIc is the designation for the contact or proto-historic period which is marked by the introduction of European artifacts in some of the mounds. Ethnohistoric accounts describe the historic tribes who lived in the area as the Acuera of the Eastern Timucua (Deagan 1978). Hunting, gathering and shellfish collecting continued as the primary subsistence mode supplemented by the cultivation of corn, beans, tobacco and other crops. Villages were located near freshwater streams or lakes and were ruled over by a chief. Research has revealed only one mound used by the Acuera, the Ft. Mason Mound on the Oklawaha River, which contains European trade goods in association with the burials (Moore 1896; Deagan 1978).

Acculturative Stage

The arrival of the Spanish during the early 1500's initiated a period of profound social and cultural upheaval among the indigenous aboriginal cultures inhabiting the state. Many traditional ways of life were destroyed or abandoned, while the remaining cultures were modified by the acquisition of Spanish traits and adaptation to the presence of a new and dominant culture.

The Spanish established two missions in the area during the early 17th century but these were probably abandoned during the Western Timucuan rebellion of 1656 (Deagan 1978). Repeated conflicts with the Europeans and exposure to European diseases resulted in the decimation of Timucuan culture by the end of the 17th century.

By the early 18th century, groups of Creek Indians who came to be known as Seminoles moved into Florida to escape the political and population pressures of the expanding American frontier. It is suspected that the village site occupied by the Seminole chief Osceola and his followers in 1836 was recently located in Citrus County near the east side of Tsala Apopka Lake. Seminole artifacts were also recovered from the Mizell site (8-Or-14) near Lake Mizell and the South Indian Fields (8-Br-23) in Brevard County.

Historical Review

The purpose of the historical documentary research was to provide expectations concerning historic period archaeological sites and their possible local and regional significance, and to serve as a guide to the field investigations. To that end books, maps and manuscripts located at the University of South Florida Special Collections Department; Florida Department of Natural Resources, Division of State Lands; and Piper Archaeological Research, Inc. were examined. Personal interviews were also conducted with local informants knowledgeable about the project area.

Early settlements during the Spanish and British Periods were focused in the northern half of the peninsula. The area which today contains southern Orange County and northern Osceola County was not settled until relatively late in the 19th century. A few cattlemen, attracted by the pasturage of the Kissimmee region, came to the area during the latter part of the Second Spanish Period (ca. 1813-1821) but did not establish permanent settlements (Federal Writers' Project 1984:364-365). Throughout the first half of the 19th century this area was primarily occupied by the Seminole Indians. The Seminoles, originally part of the Creek nation, moved from Georgia into Florida during the 18th century, filling a void left by the area's decimated aboriginal population. It was not until after the Seminole Wars and the Indian's retreat into the Everglades, that more cattlemen and settlers began to come to the area.

The Orlando/Kissimmee area was contained within the boundaries of the Seminole reservation as established by the Treaty of Moultrie Creek in 1823 (Mahon 1967:Rear fold-out map). This treaty restricted the Seminoles to 4,032,940 acres in the middle of Florida, running south from Micanopy to just north of the Peace River (Mahon 1967:50). This treaty was unpopular with the Seminoles, many of whom felt that the land within the new reservation was not well suited for cultivation, and marked the beginning of years of starvation and conflicts with white settlers.

In 1832 the U.S. Government decided that the best solution to the "Seminole problem" would be to deport them from Florida entirely. The Treaty of Payne's Landing (1832) and Treaty of Ft. Gibson (1833) were created to achieve that end. Both of these treaties were extremely unpopular with the Seminoles and led to increased resentment and outbreaks of hostility which finally culminated in the Second Seminole War in 1835 (Mahon 1967:75-76;82-83).

Fort Mellon, located near present-day Sanford, was the principal military installation in the Orlando/East Central Florida area during the Second Seminole War. Other smaller facilities

included Ft. Maitland and Ft. Gatlin near Lake Apopka, and Forts Lane, Christmas and Taylor along the western side of the St. Johns River (McKay and Blake 1839; Mahon 1967).

The area around Lake Tohopekaliga was a Seminole stronghold during the Second Seminole War. The Seminole's kept their cattle in the woods around the lake and retreated into the cypress swamp west of the lake at the approach of soldiers (Mahon 1967; Sprague 1964; Moore-Willson 1935). Tohopekaliga means "Fort Site" and the lake was so named because the islands within the lake housed the forts and stockades of the Seminoles (Moore-Willson 1935:39). Sprague (1964:258) reports that Coacoochee, or Wildcat, at one time resided on one of the lake's islands. In January 1837 General Jesup's men encountered the Seminoles near the "Great Cypress Swamp" and drove them into dense swamp. On the 28th of January the army "moved forward and occupied a strong position on Tohope-ka--liga Lake" where several hundred head of cattle were confiscated by Jesup (Sprague 1964:172).

Jesup's route took him along the west side of Lake Apopka and Lake Tohopekaliga, well outside the survey area (McKay and Blake 1839). The government plat maps of Townships 23 and 24 South, Range 32 East (Florida Department of Natural Resources [Fla. DNR] 1848a, b) does not indicate the presence of any Indian or military trails within the project area. In fact, none are present in either township. There are also no homesteads indicated. Land within the townships is described as containing primarily 3rd rate pine and saw palmetto as well as cypress swamp (Loring 1845).

The Second Seminole War had a deleterious effect on new settlement in Florida, especially in areas such as Orange and Osceola Counties where the Seminoles were entrenched. In an effort to encourage settlement in the middle portion of the territory after the war, the Armed Occupation Act was passed in 1842. The act made available for homesteading 200,000 acres outside the already developed areas south of Gainesville to the Peace River. Coastal lands and areas within a two mile radius of forts were excluded. Any head of a family or single man over eighteen able to

bear arms was eligible to receive a homestead of 160 acres if he agreed to cultivate at least five acres of land, build a dwelling and live on the property for five years (Tebeau 1971:149). Later, the Homestead Acts of 1866 and 1876 were passed as a further incentive to settlers. The 1866 Act gave freedmen and "loyal whites" the opportunity to receive 80 acre tracts in Florida and the other four public land states. Former Confederates, however, were not eligible to receive homesteads until the Act of 1866, when for the next 12 years the same lands were open to unrestricted sale (Tebeau 1971:266, 294).

In 1842 a cattleman from Georgia named Aaron Jernigan settled in the area of Ft. Gatlin. The army abandoned Ft. Gatlin in 1848 and Jernigan built a small stockade on the west side of Lake Holden as a measure of protection for settlers. The small settlement which grew up around it eventually came to be called Jernigan, and later Orlando (Gore 1949; Florida Writer's Project 1984:223-224).

The cattle industry dominated the Orlando/Kissimmee area until the 1870's when the cultivation of citrus was introduced. More efficient transportation was needed to get the fruit to market and railroads responded by extending rail lines into the Orlando area. On May 21, 1883 the State of Florida sold all the land in Sections 32, 33 and 34, T23S, R32E and Sections 3, 5, 7, 8, 9, 10, 18 and all but the NW/NW of Section 4, T24S, R32E to Florida Southern Railroad (Fla. DNR n.d.). The NW/NW of Section 4 was sold to John E. Story on July 12, 1875.

In the 1890's the State and railroad companies sold land in the Orlando vicinity to English buyers for nominal sums (approximately $1.00 an acre), who used it for the cultivation of citrus (Federal Writer's Project 1984:224). The closest village to the project area, Narcoosee (Osceola County), was settled in the mid-1880's by Englishmen who "all expected to find comfortable living and cash for their cultivation of oranges" (Morris 1974:107).

Although a disastrous freeze hit Florida during the winter of 1894-1895 virtually wiping out the citrus industry, the farmers in

the Orlando region recovered and economic growth continued. Those cattlemen who were formally in Orlando moved south to Kissimmee and that area became known as the "cow capital". In the early 1900's the timber resources of central Florida began to be exploited and land in and around the project area was used in this endeavor. East of the project area in T24S, R29E, a large turpentine operation was run by M. M. Smith in the late 19th century and a small settlement called Smithville was established (Daniel and de la Fuente 1981:52).

Turpentine operations were in effect on the project tract during the first half of the 20th century. A system of tramways facilitated the movement of pine resin and timber to the main processing station and sawmill at Holopaw in Osceola County (Leo Farout, personal communication).

Just outside the project area, at the east end of Wewahoottee Road, there once existed the small settlement of Wewahootee which consisted of a water tank, a post office and a few scattered homesteads. Wewahootee in the Creek language means "water house" and the Florida East Coast Railroad operated a water tank there when the settlement was established (Bloodworth and Morris 1978:103). The post office was established in 1933 and was decommissioned in 1943 (Bradley and Hanlock 1962), however the name Wewahootee remained on maps as late as 1960 (USDA 1960).

Prehistoric and Historic Context from the
2010 *FEC Amtrak Passenger Rail Project Volume I*

CULTURE HISTORY

PREHISTORIC CONTEXT

Paleoindian Stage (12,000 to 7500 B.C.)

Paleoindians were the first native inhabitants of Florida and are estimated to have entered the area approximately 10,000 BC. In the southeastern United States, the Paleoindian Stage lasts from approximately 10,000 to 7500 BC. The environment of Florida at that time was markedly different from the modern environment. Consequently, Paleoindian settlement and subsistence strategies are quite different from those used by later aboriginal inhabitants of Florida. Characteristics of the Paleoindian Stage include a nomadic settlement pattern, subsistence that included large-game mammals in addition to small-game hunting and gathering, and an absence of pottery. Paleoindian archaeological sites are generally defined solely on the basis of recovered lithic remains. The recovery of organic materials from paleo-components in waterlogged Paleoindian sites in Florida such as the Page/Ladson and the Little Salt Springs sites have greatly increased our understanding of this period; however, these sites are not very common and many questions remain about the Paleoindians.

Some of the earliest evidence for human occupation in south Florida comes from two sites in Sarasota County: Little Salt Springs and Warm Mineral Springs. These sites can be interpreted as sporadic hunting and gathering sites. The main area of human occupation would likely have occurred along what is now a submerged coastline (Griffin 1988). The climate during this time, however, was vastly different than today. Too dry to even support scrub oak, the inland areas of South Florida may have been "an area of high winds and shifting dunes, uninviting to human habitation" (Griffin 1988:129).

The environment in Florida during the Paleoindian Stage was so different because of lowered sea levels and a more arid climate. Pollen and charcoal samples recovered in cores taken from the bottoms of Lake Sheeler near Gainesville and Lake Tulane near Avon Park provide information on the local environment during the Paleoindian period (Watts and Hansen 1988). Between 13,000 and 10,000 BC, the dominant natural community was mesic broad-leafed forest. Water levels were as much as 26 meters below present. Warm summers and cool winters characterized the climate, and the frequency of natural fire was low. A significant result of lower sea levels was an increased land mass, about twice the size of present-day Florida. According to Milanich (1994:38) "about half of the land exposed 12,000 years ago is now inundated continental shelf."

Many modern inland rivers, lakes, springs, marshes, and wet prairies were almost nonexistent at this time. Fresh water was supplied by limestone-bottomed catchments such as water holes, lakes, and prairies, and very deep sinkholes. The presence of karst topography on which sinkholes formed is an indicator of potential Paleoindian

settlements. Climatically, Florida was much cooler and drier than today. The resulting vegetation included plant species that thrive in dry areas, such as scrub oaks, pine, open grassy prairies, and savannas.

The major settlement theory concerning Paleoindians was first put forth by Neill (1964), and later given substance through extensive recording and analysis of Paleoindian sites by Dunbar and Webb (Dunbar 1983, 1991; Dunbar et al. 1989; Webb et al. 1984). Neill's "oasis" model is based on the fact that limited water sources existed at this time. As such, the few that did exist would have been crucial to animals in the area for drinking water. For Paleoindian populations, these watering holes would have provided easy and dependable access to game, as well as to fresh water for themselves.

The oasis model has been substantiated by evidence of hunting and butchering activities near former water holes and other perched water sources, in the Tertiary limestone (karst) regions of Florida. Indeed, the majority of Suwannee and Clovis projectile points - the most diagnostic type of Paleoindian tools - have been found more commonly in Tertiary limestone regions (Dunbar and Waller 1983). Research by Carr (1986) has uncovered a filled-in solution hole and corresponding Early Archaic and Paleoindian site in southern Florida, the Cutler Fossil Site, which extends the area of settlement while still supporting the oasis model. This evidence also raises the possibility of more early sites along the Atlantic coastline (Griffin 1988).

In general, Paleoindian settlement followed a seasonal model. Settlement was probably determined more by availability of lithic resources and water than by availability of floral and faunal resources. Over time, the distribution of both of these resource types influenced settlement patterns. By the Middle Paleoindian period, settlement may have been more territorial, perhaps as a result of decreased resources and concomitant increased population (Anderson 1996).

Primarily through excavations at waterlogged sites in Florida, such as a paleo-component at the Page/Ladson site in Jefferson County, the subsistence of Paleoindians has been reconstructed (Dunbar et al. 1989). Both extinct and modern species seem to have made up the diet. Most of the extinct species were large mammals such as sloth, tapir, horse, camelids, and mammoth. Some smaller extinct animals were also consumed. Modern species in the diet included deer, fish, turtles, shellfish, gopher tortoise, diamondback rattlesnake, raccoon, opossum, rabbit, muskrat, and wood ibis. In addition, panthers and frogs have been recovered from Paleoindian sites.

The archaeological evidence suggests that Paleoindian cultures subsisted on both large and small game mammals. In addition to food, these animals were used for their furs and for tools. So far, there is little evidence of extensive reliance on coastal resources; however, coastal areas from the Paleoindian Stage would now be submerged. There have been Paleoindian artifacts recovered from oyster shell deposits along old river channels now submerged within Tampa Bay. Unfortunately, it is difficult to demonstrate that these represent culturally deposited middens given that the artifacts were found within private dredging spoil piles rather than controlled underwater archaeological

excavation (Goodyear 1999; Goodyear and Warren 1972; Warren 1964). It is likely that Paleoindians utilized plant foods extensively as well. Meltzer (1988; Meltzer and Smith 1986) argues for a generalized foraging subsistence strategy among Paleoindians within unglaciated eastern North America. His argument is based on ecology and ethnographic analogies in addition to comparison of Paleoindian tool kits and site distribution between major regions of North America.

Paleoindian sites in Florida are generally located on acidic soils. Because of this, and their age, artifacts besides lithics are rarely recovered, unless the site is submerged. As a result, the Paleoindian tool kit is the most characteristic and identifiable clue to their culture. In general, most Paleoindian tools are made from stone and are unifacial. Because of the limits of a mobile lifestyle, these tools likely served multiple purposes.

Lanceolate points are the most characteristic artifacts of the Paleoindian stage. These long, thin, bifacial blade-like points were sometimes hafted to ivory foreshafts, which were in turn attached to wooden spear shafts (Milanich 1994). Paleoindian hafted points and blades are characterized by basal thinning, which was sometimes achieved by removing a long flake from the base of the point upward. This practice is also referred to as fluting and was probably done in order to make the implement thinner at the haft and therefore easier to attach to a shaft or handle. Fluting was typically carried out early in the manufacture sequence as evidenced by flake scars that superimpose the flute scars (Goodyear and Warren 1972). While fluted points are typically associated with Paleoindian lithic technology, the practice is not commonly encountered on Paleoindian points recovered in Florida.

The basal edges and lateral margins of Paleoindian lanceolate forms also typically exhibit abrading and smoothing. This was probably done to reduce the possibility of the sharp edges of the implement from cutting the lashing that held it in the haft (Powell 1990). It should also be noted that much of the edge smoothing found on the basal areas of lithic tools could have also been caused by haft-wear. While basal grinding continued into the Early Archaic, this attribute is for the most part limited to the Paleoindian and Early Archaic periods.

Of the lanceolate forms, the Suwannee point is the most widely recognized in Florida. As described by Bullen (1975:55), it is “slightly waisted” with a concave base, basal ears, and basal grinding on the bottom and waisted parts of the sides. The Suwannee is typically not fluted. Clovis points, indicative of Paleoindians throughout most of North America, are rarely recovered in Florida.

In addition to the above points, other tools in the Paleoindian tool kit include cores, bifacial knives, and oval ground stone weights, or bolas, which are thought to have been attached by thongs and thrown to bring down game such as water birds (Neill 1971; Purdy 1981). Bone tools include the double-pointed point, which may have functioned as pins to hold back tissue while animals were butchered (Waller 1976).

Toward the end of the Paleoindian Stage, large lanceolate points such as Suwannee disappear from the archaeological record and are replaced by smaller points such as the Greenbrier (Bullen 1975; Powell 1990). In addition, side-notched points such as Dalton and Hardaway appear. Such points may have replaced earlier lanceolate points, or they may have been in use concurrently. Side-notched points may have also functioned more as hafted knives rather than projectile points. In general, the smaller side-notched points are interpreted as a result of changes in environment and the subsequent shift from the hunting of large Pleistocene animals to smaller game such as deer. Towards this end, these smaller notched point forms were probably fitted to shafts that were propelled either by hand or with the aid of an atlatl.

Archaic Stage (7500 to 500 B.C.)

The Archaic Stage occurred from about 7500 to 500 BC and is associated with the Holocene geologic epoch. After the demise of some types of Pleistocene fauna, human subsistence strategies became more diverse and included new plant, animal, and aquatic species. These changes are seen in the way stone tools changed through time. Smaller side-notched spear points or knives replaced the large multifunctional lanceolate-shaped spear points used during the Paleoindian Stage. These smaller tools were designed to be thrown or launched with a spear thrower (atlatl), or hafted to a handle and used as a knife.

These changes in the way people lived were due in large part to the physiographic and climatic changes occurring in Florida. As a result, subsistence and settlement patterns of the Archaic hunting and gathering groups also changed. People began to live in larger groups, use different types of stone tools, and inhabit more of what is now Florida. While the atlatl was developed during the Archaic, pottery and the bow and arrow had yet to be invented in North America. These two major innovations would come later during the Transitional period. It is important to note that these changes in material culture, social organization, and settlement and subsistence did not occur quickly. As Milanich (1994) points out, the changes that are visible in the archaeological record took place over many generations and were the result of shifting adaptations to a gradually changing environment.

The Early Archaic (7500 to 5000 BC) represented a continuation of the Paleoindian occupation of Florida and occurred during a time of rising sea levels, a gradual warming trend with less arid conditions, and the spread of oak hardwood forests and hammocks. An obvious difference between the Paleoindian and Early Archaic is the shift from lanceolate blade-like points like Suwannee and Simpson points to smaller side-notched and stemmed projectile points/knife forms such as the Bolen and Kirk clusters.

Subsistence and settlement patterns also became more diversified during the Early Archaic. The shift in how people lived is reflected in the location of archaeological sites from this time period across the landscape. In general terms, subsistence and settlement patterns became more diversified during the Early Archaic, perhaps as a result of a shift in climate.

While thermal alteration of chert occurred for the first time during this period, the practice was limited (Powell 1990). Alternate beveling of the cutting edges of stone tools was a common practice and is interpreted as evidence of resharpening of lateral margins by pressure flaking. Evidence suggests that the wooden shaft would typically be held in the left hand while the right side of the actual point was resharpened with the right hand. This process resulted in the removal of flakes in a downward motion from one lateral margin, then when the point was flipped over, flakes would be removed from the opposite lateral margin in the same fashion. This method of resharpening results in beveled margins that appear as unifacially resharpened edges that occur on opposite sides of the implement.

Debate continues among southeastern archaeologists about whether to place early side-notched forms such as the Bolen in the Late Paleoindian or Early Archaic period. This is largely the result of conflicting evidence from archaeological sites in Florida and the Southeastern Coastal Plain. Milanich (1994) and Purdy (1981) both describe Bolens as Late Paleoindian period implements, and these points were recovered in association with lanceolate Suwannee and Simpson forms at the Harney Flats site in Hillsborough County (Daniel and Wisenbaker 1987). Other archaeologists, however, assign the Bolen to the Early Archaic (Goodyear 1982, 1999; Tesar 1994; Tuck 1974; Widmer 1988).

Numerous small Early Archaic special activity and campsites have been located throughout the Central Florida Highlands (Milanich 1994; Milanich and Fairbanks 1980). Tesar (1994) summarizes the Early Archaic as being characterized by relatively large base camps that were occupied at least semi-permanently and smaller seasonal camps and special use sites. These sites are often located near "ecotonal breaks" with dependable sources of freshwater nearby. Because these sites were typically in desirable locations, they were also sometimes reoccupied during later periods.

Paleoindian and Early Archaic artifacts are sometimes recovered in association with each other; however, overall Early Archaic settlement patterns appear to be more widespread than those of the Paleoindian Stage. This expansion in settlement patterns is probably due in part to the warming trend and increase in precipitation that occurred at the close of the Pleistocene. Early Archaic people also began to utilize coastal and riverine environments more heavily. However, as Milanich (1994) points out, our lack of knowledge about the full range of Early Archaic tools (lithic and bone) stems from the scarcity of artifact collections from professionally excavated sites.

As populations grew and the climate continued to become more like modern conditions, Archaic groups began to become more diversified. They slowly moved into previously unoccupied environmental niches and began producing stone tools that tended to be stemmed rather than notched. This diversification is seen in the types of stone tools produced, the exploitation of shellfish resources, and in the increase of archaeological sites that date to this time period. Archaeologists refer to this period as the Middle Archaic period (5500-3000 BC).

The Middle Archaic experienced a change in climate from the previous period. The Middle Archaic experienced more moisture and access to more water resources. This encouraged an intrusion of mixed pine and oak into the hardwood forest. As conditions became wetter after 6500 BC (Watts and Hansen 1988), large river systems and wetlands developed and people began to exploit the resources associated with these habitats (mainly freshwater shellfish). This trend toward more sedentary occupations and more circumscribed territories continued into the Late Archaic, as conditions became more similar to the modern environment. Milanich (1994) points out that Middle Archaic sites are found in a variety of locations around Florida including wetland systems. In sum, Middle Archaic habitation sites increased in size and the density of artifacts, and for the first time include large shell middens.

Lithic technology during the Middle Archaic is centered on the stemmed point. Few, if any Middle Archaic point types in Florida are side-notched. Stem configurations vary and some are no more than protrusions that extend from the basal region of the tool (e.g., Brier Creek or Morrow Mountain cluster). Other stem configurations are well formed and extend as obvious hafting attachments (e.g., the Newnan cluster). Alternate beveling of points was still practiced but to a lesser degree than during the Early Archaic period.

While basal grinding is seldom found on Middle Archaic forms, the use of thermal alteration increased during this time. Heat-treated chert is commonplace at Middle Archaic sites in Florida. Although the thermal alteration of chert took place throughout the Archaic, this practice appears to have peaked during the Middle Archaic (Ste. Claire 1987).

The Late Archaic (3000-500 BC) is characterized by the emergence of modern environmental conditions in Florida as major wetland systems developed (Watts and Hansen 1988:Table 3). Deposits from Lake Sheeler suggest that the dominant natural community was pine forests interspersed with swamps. Water levels were high and forest fires frequent during this time.

Due to the increase in wetland environments, a settlement and subsistence shift occurred emphasizing a greater use of marine, riverine, and wetland resources. While people did not necessarily occupy different environmental zones during this time, the use of shellfish intensified. Large shell middens that date to the Late Archaic are found throughout the state. This is thought to be the result of a reliance on riverine and coastal wetland resources. Extensive middens dating to the Late Archaic are found along the coast and inland waterways in many coastal areas of Florida, including Flagler County and north, Charlotte Harbor and south, and along the inland waterways of the St. Johns River. Although not apparent, many coastal areas not mentioned likely share the number and occurrence of Late Archaic sites; however, these areas, such as Tampa Bay, are thought to be inundated by rising sea levels, or anthropomorphic ecological changes (Warren 1970; Warren and Bullen 1965).

While many, if not most, of the same cultural traits were carried over from the Middle into the Late Archaic, certain developments separate the two periods. In particular, it is the use of steatite cooking vessels and the development of fiber-tempered pottery that are unique to the Late Archaic (Milanich 1994; Powell 1990).

The earliest ceramics in Florida are distinctively tempered with plant fibers and were developed ca. 2000 BC. This technology may have arisen independently in Florida, or diffused south from Georgia or South Carolina where earlier dates for fiber-tempered pottery have been obtained. Regardless of their origin, the earliest fiber-tempered wares were undecorated. By 1650 BC decorative techniques were used in their manufacture, including geometric shapes and punctuations. It is the advent of this fiber-tempered pottery that is associated with the Orange period cultures (Milanich 1994). The Orange period lasted from approximately 1650 BC to 500 BC.

The Orange ceramic tradition stretched along the Atlantic Coast between southern South Carolina and northern Florida. Orange Fiber-Tempered ceramics were first described by James Griffin (1945) and are considered among the earliest pottery types in North America. While fiber-tempered pottery is found throughout Florida, it is primarily recovered in eastern and central portions of the state. Orange Incised is recognizable by distinctive rectilinear incised and punctated designs that cover much of the exterior of the pot. Orange Plain is a variant that occurs on the same paste as Orange Incised; however, these wares are undecorated.

This pottery was hypothesized to exhibit changes in design and motif that designate different subperiods. The later subperiod, 1250-1000 BC, represents the introduction of sand into the ceramics as temper, as well as the introduction of the coiling method of manufacturing clay pots (Sassaman 1993). However, more recent work by Sassaman has rejected the claim the Orange period can be further broken down into subperiods based on decorative techniques applied to the exterior of the fiber-tempered ceramics. Recently, Sassaman has dated soot from the exterior of incised pottery that has produced dates as early as those extant for plain ceramics. Thus a cultural and not chronological explanation is hypothesized for the difference in Orange Plain and Orange Incised wares. In essence, the pottery manufactured with incisions tends to be thick, spiculate, tall, and used over fires, while the plain wares tend to be thin, non-spiculate, and never used over fire (Sassaman 2003). Thus, it appears that the difference between incised fiber-tempered wares and plain fiber-tempered wares is that the incised wares are for cooking over open flame, while the plain are not.

Another early fiber-tempered ceramic culture is hypothesized for the area that extends from the Gulf coast to the Orange series on the eastern coast. Called the Norwood culture, more resent research questions the necessity or validity of separating the fiber-tempered ceramic period into two cultures (Milanich 1994).

As the Late Archaic period progressed, more and more sand was added as a tempering agent for the clay used to make pottery. Eventually, this technique replaced the practice of using plant fibers as a tempering agent. Early sand and grit-tempered

pottery in north Florida was produced by the Deptford culture. Another dominant pottery tradition is called St. Johns ware. St. Johns pottery relies on microscopic sponge spicules, or endoskeletons, as temper. Although some sand was added to this pottery, St. Johns ware lacks the fiber, sand, and grit temper that is typical of other prehistoric pottery. Previously this pottery tradition was believed to follow in sequence the Orange fiber-tempered pottery tradition. However, recent work by Sassaman (2003) provides evidence that the Orange pottery sequence should be revised. According to Sassaman, the Orange periods (1-4) can effectively be condensed into one period, Orange 1. Soot samples dated from the exterior of Orange Incised pottery believed to date to the Orange 3 period have resulted in Orange 1 (4000-3650 radiocarbon years before present) period dates. Therefore the Orange 1 period also saw manufacture of incised as well as plain pottery, particularly in the middle St. Johns Valley and along the northeast coast of Florida. In addition, work by Cordell discussed by Sassaman (2003), also indicates the prevalence of speculate paste sherds, typical of the St. Johns manufacturing technique, present in Orange 1 period contexts. This evidence suggests that the advent of the St. Johns ceramic tradition occurred simultaneously with the very first pottery production during the Orange 1 period (ca. 4000 radiocarbon years before present) and extended beyond the Late Archaic period throughout the pre-contact period until the demise of the manufacturing culture.

Late Archaic sites, mainly extensive Archaic shell middens, are present along the coast of southwest Florida. Excavations resulted in the identification of Late Archaic middens on Useppa Island and Horr's Island in the 1980s (McMichael 1982). Marco Island also has several sites associated with the Late Archaic (Milanich 1994). The Late Archaic populations utilized all available resources along the coastline of Florida. The efficiency with which food was collected along the coast and other waterways allowed the populations of this period to become sedentary, and thus encouraging their social and cultural systems to become elaborated. By approximately 3000 BC it is believed that coastal and riverine cultures were characterized by "greater cultural complexity, sedentism, and regionalization." (Milanich 1994:104).

The general trend of the Late Archaic can be summarized as a shift towards large relatively permanent villages. Regional cultures continued to develop during this time and several examples of localized Late Archaic groups include Mount Taylor and Orange in northeast and east Florida, and the Elliot's Point Complex in northwest Florida.

Woodland Stage (500 B.C. to A.D. 1765)

Following the Late Archaic period, cultures associated with the Woodland Stage emerged. Woodland cultures can be briefly described as developing more regionalization than those during the preceding Archaic Stage. The current project area runs along the east coast of Florida and passes through two distinct archaeological regions, as described by archaeologists (Milanich 1994). These two archaeological regions are the East and Central and the Glades regions (Figure 2).

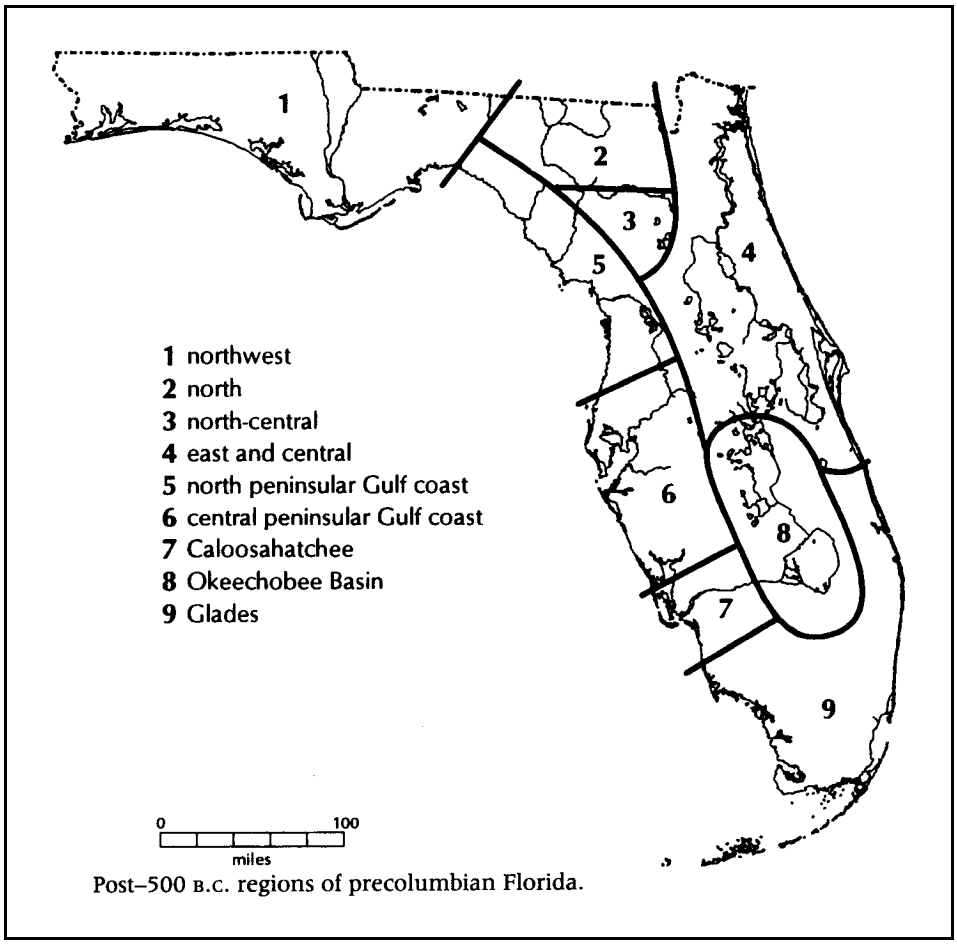

Figure 2. Post-500 B.C. archaeological regions of Florida (from Milanich 1994:xix).

East and Central Florida Region. The East and Central archaeological region of Florida is one of the largest archaeological regions found in the state. Although the area encompasses land that stretches from the eastern boundary with northern Georgia to the northern boundary of the Kissimmee River drainage (approximately the southern Indian River County boundary) and from the east coast of Florida to within 30 miles of Tampa Bay, the archaeological region is not a reflection of a unified culture area. Rather, it is an area that encompasses at least four distinct culture variations. Seven cultural regions border the extensive East and Central archaeological region creating distinct cultural areas within the region based on the mixing of archaeological traditions with neighboring culture areas. The primary trait by which this archaeological region is distinguished is the presence of St. Johns pottery. The four cultural areas found within the East and Central archaeological region include the St. Johns Heartland, Northeast Coastal Florida, Indian River Area, and the Central Lakes District (Russo 1992). The current project area exists within two of these, the St. Johns Heartland and the Indian River Area.

These four cultural areas have the presence of St. Johns pottery in common. The chronology for St. Johns pottery is divided into two parts, St. Johns I (500 B.C.–A.D. 800) and St. Johns II (A.D. 800-1565). The inception of the St. Johns II period is marked

by the production of St. Johns Check-stamped, and the terminus of this period is marked by the arrival of the Spanish. The two St. Johns periods are further subdivided based on adoption of incising techniques, red-slipping and the presence of trade wares.

St. Johns Heartland. The St. Johns Heartland encompasses an area that stretches from the mouth of the St. Johns River on the Atlantic Coast west to Lake Harney and south to the Indian River. The culture along this thin strip of area along the Atlantic Coast was initially believed to have arisen out of the earlier Late Archaic Orange culture period (Bullen 1972; Rouse 1951). With Sassaman's (2003) work indicating that St. Johns wares may occur simultaneously with Orange fiber or semi-fiber tempered wares, this may indicate that the St. Johns wares occurred earlier than previously believed. Regardless, the St. Johns wares show a continuity of design similar to the Orange incised wares. In general, St. Johns plain wares are common both temporally and spatially. Linear incisions are common in the early and late types. Dunns Creek Red is a red-filmed St. Johns type. Exotic wares are also located within burial contexts, these types include Deptford, Glades, Belle Glade, Swift Creek Complicated Stamped, Weeden Island, Savannah Cord Marked, Safety Harbor, and Fort Walton types.

Few if any chert outcroppings are located along this portion of the Atlantic coast, as a result, there are fewer lithic materials, resulting in a lack of a formal projectile point chronology for the area. Although chert is rare, some soft limestone is common, and limestone abraders are found throughout the area. In addition exotic steatite vessels are found in mortuary contexts. Due to the paucity of lithic material, coastal St. Johns peoples used bone and shell for tool and ornamental manufacture. Shellfish species were often used to create adzes, dippers cups, and terrestrial faunal bones were used for tools such as awls and ornamental objects such as pins and beads. The settlement patterns of the area include shell middens and mounds along the coast and less dense inland artifact scatters.

Indian River Area. Goggin (1952) and Rouse (1951) believed that the Indian River area, from its northern headwaters to its southern boundary near the St. Lucie Inlet, was remarkably different than the St. Johns heartland area found to the north. The lack of corn production and different social linguistic and religious customs were observed by the initial Spanish observers who came to the area. Archaeologically, this area is differentiated by an increase in sand-tempered pottery. Rouse (1951) gave this area a slightly different chronology termed Malabar and separated this chronology into two parts, Malabar I and Malabar II, based on similar variations as those found within the St. Johns heartland area. Due to the lack of differentiation found archaeologically, many archaeologists did not follow Rouse's example and grouped this area as a variation of the St. Johns culture region. In general differences extend to burial practices and site types. Although snails are the common midden type located in the heartland, mussels are the preferred shellfish midden located in the Indian River area. In addition, evidence suggests (Russo 1986) that the Indian River people inhabited inland areas during winter months, unlike those groups located to the north.

Glades Region. The Glades region includes coastal portions of St. Lucie, Martin, Palm Beach, Broward, Miami-Dade, and Monroe counties and most of Collier County. This area is bordered by the St. Johns/Malabar cultures to the northeast and the Caloosahatchee culture to the northwest. The Okeechobee Basin culture is present to the northwest and north-central of the Glades area, but is excluded from the Glades region. Researchers have divided the Glades area into differing culture regions. In general the Glades region can be divided into three geographical districts or culture areas, the East Okeechobee, the Ten Thousand Islands, and the Everglades. The current project area lies within the Everglades culture area.

The most dominant feature of the Glades region is the Everglades. The large marsh is mostly covered by sawgrass punctuated by higher ground or tree islands, called hammocks. The Big Cypress Swamp is another major physiographic and environmental area in the Glades regions. Coastal areas are dominated by estuaries, and saltwater marshes, and mangroves (Kozuch 1992).

Because the underlying rock of the area is porous limestone, and no chert outcrops exist in this region, lithic artifacts are fairly rare, in particular on the southeast coast. If chert is recovered from the Glades area, it is likely to have been imported, or traded from another area, such as the Tampa Bay area, where chert outcrops are numerous. Although chert artifacts are rare, limestone artifacts due exist, such as plummets, grooved pebbles, net sinkers, and hammerstones. Shell an abundant resource along the coast, is often even more dominant than limestone in the artifact assemblages from the area. The heavy stones such as *Busycon*, *Strombus*, and *Pleuroploca* (whelks and conchs) were the most common types to be used for the manufacture of picks, adzes, celts, chisels, awles, gouges, knives, scrapers, cups, saucers, dippers, and spoons. Smaller bivalves are thought to be used for smaller items such as net weights, sinkers, and on occasion, beads (Kozuch 1992). Bone tools, often made of deer bone or antler, were also common in inland sites. It is also known that prehistoric people used wood and plant fibers for cordage and decorative items through excavations at the Key Marco site where preservation in anaerobic muck was excellent.

As would be expected, settlement and subsistence had much to do with the local environment of the area. The coastal areas were capable of sustaining large populations with the abundant harvesting of shellfish, resulting in large shell middens at habitations sites along the coast. Inland sites are typically exhibited as earthen middens and indicate a subsistence heavily based on fish, mammals and reptiles, readily available in the inland environments.

The Glades area is divided into three temporal periods, with subsequent subperiods, including the Glades I (early and late), Glades II (a, b, and c) and Glades III (a and b). These periods and subperiods are based on ceramic seriation and the presence/absence of certain decorated ceramic wares.

Beginning with Glades I early (500 BC – AD 500), this period is marked by the predominance of pottery types that are undecorated, by Glades I late (AD 500-750),

decorative wares appear and include types such as Sanibel incised, Cane Patch incised and Fort Drum incised. Glades II a (AD 750-900) also is marked by incised wares such as Key Largo incised, Opa Locka incised, and Miami incised. Glades II b (AD 900-1100) is marked by the appearance of Matecumbe incised and vessel shapes are predominantly bowl-types. Glades II c (AD 1100-1200) exhibits a decrease in decoration, although some decorative wares exist, such as Plantation Pinched wares. Glades III a (AD 1200-1400) exhibit decorative wares such as Surfside Incised, Safety Harbor incised, and St. Johns Check Stamped. Glades III b (AD 1400-1513) marks a time when there are few decorated ceramics, with the exception of lightly decorated Glades tooled rims. Throughout all periods the pervasive sand-tempered plain is also present (Griffin 1988; Milanich 1994).

HISTORIC CONTEXT

At the time of the arrival of the first Europeans, the east coast of Florida was populated by several different Native American groups. The Indians living in northeastern Florida along the St. Johns River were Timucua, that is, they spoke a dialect of the language the Spaniards called Timucua. Although Timucuan groups had spread across northern Florida and into southern Georgia, they were not a unified group. Various dialects represent different cultures that probably never considered themselves a single entity (Milanich 1995). These people lived at least some of the time in medium-sized sedentary villages and their subsistence relied, at least in part, on agriculture. Cultivated products included corn, beans, and squash. The Indians also relied heavily on marine life and shellfish. Life continued in a fashion very similar to the previous St. Johns II period with a gradual population loss and cultural changes caused by increasing contact with Europeans and European disease.

The Indian River area at this time was occupied by the Ais, and the area immediately south of this was occupied by the related Jeaga. There is ethnohistoric evidence to suggest a vassal or similar type relationship between the cacique (chief) of the Jeaga and the Ais (Andrews and Andrews 1985). The Ais and Jeaga subsisted primarily by hunting, fishing, and gathering, with a large portion of their diet composed of oysters and other shellfish, fish, turtles, palm berries, and sea grapes. The Ais population density was greatest along the estuaries, rather than on the beaches (Dickel 1992). Similar to the Calusa of southwestern Florida, the Ais had a complex sociopolitical system with a paramount chief, who held power over local village chiefs. Tribal alliances were often cemented by rather tenuous elite marriages, and as marriages dissolved, alliances ceased as well. Rouse (1951) asserts that the Jeaga and the Ais are linguistically linked to the Calusa, and share more in common with their south Florida neighbors than the Timicuan tribes to the north. "Their culture was of the south Florida type, and their language belonged to the Calusa group. Politically too, their friendly relationships were almost entirely to the south of them" (Rouse 1951:34). Unlike their more northerly neighbors, the Jeaga and the Ais did not engage in horticulture. In addition, Rouse (1951) asserts that the Ais were not on good terms with their Timicuan neighbors to the north, nor their Mayami neighbors to the west.

The first recorded European to reach Florida was Juan Ponce de Leon who landed on the east coast near St. Augustine in 1513. Panfilo de Narvaez followed him in 1528, landing near Tampa Bay and trekking into the interior of Florida reaching the Apalachee region of west Florida. Hernando de Soto landed near Tampa Bay in 1539 and proceeded to march inland through Florida in search of gold. The de Soto trail, as reconstructed, headed north from the village of Ocale (approximately 25 miles southwest of present day Ocala) to the west of Gainesville, in the area of the San Felasco Hammock that was inhabited by Potano and Utina bands of Timucua Indians. From there, de Soto continued north into Georgia (Milanich and Hudson 1993).

In 1522 a *flota*, or convoy system, had been implemented to provide protection for ships bound to Spain from the colonies. By this time the sailing directions provided for the *flota* to follow the Gulf Stream northward, along the east coast of Florida, until turning east off the Carolinas and following the trade winds past Bermuda and onward to Spain. Although there had been previous attempts by the Spanish to establish colonies on the mainland, events in Europe were soon to provide an impetus for another, more determined effort to secure a base in Florida.

With the Protestant Reformation came the opportunity for non-Catholic interests to ignore the papal bulls of demarcation that had created a virtual Spanish monopoly in the Caribbean basin. Circumvention of these papal ordinances provided non-Catholic countries, such as England, Holland, and France, with a legal basis for moving into areas that heretofore had been the sole province of the Spanish Crown. These incursions threatened the maritime trade between Spain and her colonies, both by direct intervention and economic competition.

On May 1, 1562 French Protestants under the command of Jean Ribault found and explored a large river in the northern reaches of the Florida peninsula. Within a year the French successfully established Fort Caroline on what is today the St. Johns River, which they called the River of May. In 1564 an additional force of three hundred French Protestants joined the garrison already in place, and a foothold for the French was secured on the Florida mainland. This French presence created a strong threat to the Spanish shipping that had to follow the Gulf Stream and pass through the Bahamas Channel between the mainland and the Bahamas Islands (Franklin and Morris 1996).

The colony suffered from lack of supplies and poor relations with the local Indians. Jean Ribault was sent from France with supplies and a contingent of 600 soldiers and settlers to reinforce the fort (Tebeau 1971). The French and Spanish were in direct competition for Florida and the Spanish king, Phillip II, sent Admiral Pedro Menendez de Aviles to destroy Fort Caroline and reclaim the land for Spain.

Menendez established a base to the south of St. Augustine and continued to periodically attack the French. In response, Ribault formulated a plan to attack St. Augustine from the sea and organized a group of French ships to carry this out. The ships ran aground during a hurricane at Matanzas Inlet to the south of St. Augustine. With 500 soldiers, Menendez took advantage of the loss of the French fleet and attacked

the poorly defended colony at Fort Caroline on September 20, 1565. Almost all of the settlers were massacred except for approximately 60 women and children who were captured (Gannon 2003). About fifty other settlers escaped Menendez and sailed for France. Fort Caroline was claimed by the Spanish and renamed San Mateo (Milanich and Hudson 1993).

Menendez then turned south and engaged the shipwrecked French fleet, Ribault among them, at Matanzas Inlet. The French surrendered, but Menendez, believing they were heretics and faced with the problem of caring for about 350 prisoners, killed all but those professing to be Catholic or a musician. To secure the northern boundaries of Spanish La Florida against any further invasions from other colonial powers, a small town was settled at Santa Elena on the coast of South Carolina. The St. Augustine settlement was maintained and a string of Spanish missions were established west across Florida towards Tallahassee (Tebeau 1971).

Menendez went on to found the city of St. Augustine in 1565. Chosen for its strategic location, St. Augustine existed as a military outpost and as a base for missionaries, who worked at converting the native population to Catholicism. Military operations took place in the form of land patrols to keep other colonial powers (such as France and Britain) from infringing on the Spanish claim. Spanish military ships also used St. Augustine as a base of operations for protecting the gold-laden ships that passed through the Florida Straits en route to Spain from Mexico and South America.

In an effort to convert the local Indians and recruit Native American labors for Spanish projects such as the construction of the fort in St. Augustine, Menedez instituted a mission system across north Florida in 1565 (Hann 1996; Milanich and Hudson 1993). Timucuan villages were targeted for the construction of missions and accounts of both mission and Indian life were included in Spanish documents throughout the seventeenth century. These accounts mention skirmishes between native groups and the Spanish, disease epidemics, and the decline of indigenous populations (Buchholz 1929; Gannon 1965; Johnson 1991; Milanich and Hudson 1993).

In 1586, Sir Francis Drake, with 2,000 men and 23 heavy war ships, overpowered the eighty armed Spanish men defending the Spanish city via a hastily erected wooden fort, located at the site of the Castillo de San Marcos. Drake looted the town and ordered it burned. During the reconstruction of St. Augustine, the Castillo de San Marcos was reinforced. As the number of Timucuan Indians living in this region of Florida had sharply declined since the arrival of the Spanish, Guale and Yamassee Indians from the Georgia coast and Apalachee Indians from western Florida began to move into the area around St. Augustine during the 1600s. The efforts to Christianize the Timucua, Guale, and Apalachee Indians increased through the mission system. By 1684 the English settled in Charleston, South Carolina, and influenced the Indians to overthrow the Spanish in Florida (Tebeau 1971).

In their effort to take the town of St. Augustine, the English destroyed the missions north of the city in 1702, but failed to take the stone fort. Like Drake, the English burned St.

Augustine. St. Augustine was rebuilt, however, and by 1708 it was the only remaining Spanish mission in Florida.

After continual struggle for control of the coast, Spain ceded all of Florida to England in the Treaty of Paris dated 1763. The British split Florida into two parts: East Florida, with its capital in St. Augustine, and West Florida, with its capital at Pensacola. While the Spanish cession caused an immediate rush from Carolina for land to use for rice cultivation in the areas above the St. Mary's, the area south of the St. Mary's was for the most part ignored, since it was characterized as "dismal swamp" (Chesnutt 1978:6). Yet the area was full of timber to be harvested and cultivated for the production of naval stores.

The American Colonies declared their independence from British rule in 1776. According to Coomes (1975), Georgia and South Carolina required their citizens to take a strict oath of loyalty to the Revolutionary cause, and this forced loyalists to seek shelter in the Province of East Florida.

Commerce with Charleston and other British colonies also quickly increased as the trade restrictions that the Spanish Crown had imposed on the colony were removed with the arrival of the British. A greater emphasis was soon placed on the export of naval stores and ships timbers, and the Royal Navy's demand for more vessels was a constant consideration as well. Even the coming of the American Revolution did little to impact the export of these products, and in 1782 alone over 20,000 barrels of turpentine were exported (Fairbanks 1975).

The native population had been ravaged by war and disease, which had left much of Florida uninhabited by Native Americans by ca. 1750. This void allowed the Creeks from Alabama, Georgia, and the Carolinas to migrate into Florida. In 1765, these migrating Indians were referred to with the Spanish term *cimarrone,* or "wild" and "runaway", in the field notes accompanying de Brahm's 1765 map of Florida. The term "seminole" is thought to have derived from this reference (Fernald and Purdum 1992).

The Seminoles prospered in Florida raising cattle and growing their traditional crops of corn, beans, squash, and tobacco, as well as crops such as sweet potatoes and melons borrowed from the Spaniards (Fairbanks 1973). The Seminoles established permanent towns from the Apalachicola River to the St. Johns River. Instead of the mission system of the Spanish, the British set up several trading posts in Florida. Seminoles traded deer, wild cattle, and furs in exchange for guns, iron tools, cloth, and a variety of ornamental jewelry (Fairbanks 1973). During this time, runaway black slaves from the Carolina colonies fled to Florida and sought refuge either in a black colony outside St. Augustine, where they were to become farmers and, occasionally, soldiers, or in the Seminole settlements in the interior of the colony. The Seminoles helped the runaways form their own settlements, and often prevented slave-catchers from capturing them (Fairbanks 1973).

The Spanish continued the British system of controlling the Seminoles through trade. Rum became a common trade good and credit was extended to the Seminoles, who were unable to produce enough skins to balance their accounts. Seminole land was often accepted as payment (Fairbanks 1973).

At the Revolutionary War's end, the British defeat at the hands of the American colonists saw a new Treaty of Paris, which returned sovereignty of Florida to the Spanish and began the Second Spanish Period. With the return of the Spanish to East Florida came the attempt to reassert Spanish religious and cultural dominance in the region, which had adopted a multi-cultural character under British rule. Although St. Augustine returned to its position of a Spanish trade entrypoint, it was no longer an essential military position guarding the route of Spanish shipping returning to the Old World. Trade also took on a more international aspect, with more vessels entering the harbor under foreign flags than under the flag of Spain (Griffin 1983). The influx of foreign nationals into the north Florida region likewise contributed to the continued deterioration of Spanish dominance in the area, along with a growing sentiment that the new United States should control Florida (Franklin and Morris 1996).

Indian refugees from the Creek War of 1814 fled to Florida and almost doubled the Seminole population. The new Seminoles were mostly Upper Creeks, originating from central Alabama, and spoke the Muskogean language. The Florida Seminoles spoke the Mikasuki language (Fairbanks 1973). Border conflicts between the Seminole and white settlers increased and culminated in 1817 with the First Seminole War. General Andrew Jackson, known to the Seminoles as Sharp Knife, invaded Seminole territory killing Indians and burning houses. This military effort was largely responsible for Florida becoming a United States Territory in 1819 with Andrew Jackson as a military governor. Florida became an U.S. territory in 1821. Landowners who had been granted land under Spanish rule were permitted to keep their land. Governor Jackson organized the Territory of Florida into two counties, Escambia and St. Johns, with the legislative council meeting in Pensacola in 1822, and in St. Augustine in 1823 (Tebeau 1971). The First Seminole War ended with the Treaty of Moultree Creek in 1823, which stipulated that the Seminoles would move to a reservation in the middle of Florida.

During the territorial period, methods of transportation to connect the coasts to the interior became a priority. In addition to road improvement and new road construction, increased travel up inland rivers through the harness of steam power, and the constant consideration of a canal to be cut through the state, rail routes began to crisscross the state of Florida. In 1845 Florida became a state, though by 1861 it would again leave the Union.

The Payne's Landing Treaty of 1832 required the Seminoles to relinquish their land within three years and move onto reservations in the western United States. The Seminole leader Osceola killed Chief Charley Emathla who had agreed to move his town to Oklahoma. When the three years had expired, 180 Seminoles attacked a column of 108 men led by Major Francis Dade. The attack took place near the Withlacoochee River near present-day Bushnell while Dade and his men were en route from Ft. Brooke

(present-day Tampa) to Ft. King (near present-day Ocala). The Seminoles left only three men alive at the battle and they died within a matter of weeks from their wounds (Chamberlin 1995). With minimal Seminole casualties, the raid was an overwhelming victory. The battle demonstrated to the U.S. Army that the Seminole, when organized, represented a considerable military force. In addition, the victory resulted in the capture of over one hundred U.S. Army muskets by the Seminole.

On the same day as the attack on Dade, Osceola led an assault on Fort King. These incidents sparked the Second Seminole War. The federal forces were confused by the Seminole raid-and-run tactics and were unfamiliar with the wooded and swampy terrain. The war spread to the south, in the vicinity of Lake Okeechobee, in the Everglades. In 1837, Osceola was taken prisoner under a white truce flag and brought to Fort Marion (Castillo de San Marcos) in St. Augustine. His fellow Seminole prisoners starved themselves until they were able to escape through their cell windows. Osceola, however, contracted malaria and later died in Fort Moultree, South Carolina. His head was removed prior to the burial of his body by the attending physician, Dr. Frederick Weeden, and was later brought back to St. Augustine as a personal souvenir (Nolan 1995). The war continued until 1842, when several hundred Seminoles were shipped to the western territories. In total, the Second Seminole War cost the United States an estimated $40,000,000 and the lives of 1,500 troops.

The Third and final Seminole War erupted in 1849 when an Everglades army surveying party led by Lieutenant Hartsuff happened upon Chief Bowlegs' field of corn, beans, pumpkins, and bananas. The surveyors destroyed the plot and kicked Bowlegs to the ground. The next day Bowlegs returned with his men and severely wounded the surveyors in a skirmish. Because of these events, the Third Seminole War is also referred to as Billy Bowleg's war. During this period forts were reactivated and war was again declared. By 1858, after a series of sporadic skirmishes, the Third Seminole War ended with the shipment of 123 Seminoles to Oklahoma. However, 100-300 Seminoles who evaded capture remained in the Everglades (Fernald and Purdum 1992). The present-day Seminole and Miccosukee Tribes of Florida and the Independent Seminole of Florida are direct descendants of the Seminole that could not be forcibly removed during the Seminole Wars. As a result of forced removal, Seminole Indians also now live in Texas and Oklahoma.

During the Civil War, Florida had joined the Confederate States of America. Small militia bands formed in 1861 when Florida seceded from the Union. Many locals joined the Confederate Army and later spent their time flushing out Union supporters. Florida's primary role in the Civil War was to provide supplies and troops to the Confederacy. In a blockaded south where supplies were difficult to obtain, the Confederate Impressment Act collected food supplies including beef, pork, rice and potatoes from Floridians that were stored in warehouse depots throughout the state. Few significant battles were fought within the state. The west coast of Florida was a major salt producing area throughout the south during the War Between the States (Dayton 1986).

In early 1862 Federal forces began to occupy Florida. Sailors and marines from the *U.S.S. Hatteras* landed at Cedar Key, destroying the wharf and depot. Cedar Key was virtually unprotected since Confederate troops had been sent along the railroad to protect Fernandina. Yet when Federal troops reached Amelia Island on March 3, they found the Confederates leaving, and simply took possession of Fort Clinch, St. Mary's, and Cumberland Island (Tebeau 1971).

Coastal communities in Florida continued to be raided and occupied at will by Union forces. Fortunately there were no military objectives in the interior to draw attention, and no invasion occurred until 1864 (Tebeau 1971). Jacksonville was invaded and abandoned four separate times. In April of 1862, as the Confederates withdrew after the first invasion, they destroyed eight of their own sawmills, along with four million board feet of lumber, an iron foundry, and an ironworks. Retreating Confederate forces followed the tracks inland towards Baldwin, nineteen miles west of Jacksonville, where three railway lines converged. To prevent it falling into enemy hands, the Confederate troops pulled up several miles of railroad track along the route (Tebeau 1971).

During the fourth invasion, Union troops again entered Jacksonville and moved towards Baldwin along the rail track route. Confederate forces withdrew along the track of the advance, and finally a definitive battle was fought at Olustee. The Confederate troops retained control of Florida's interior.

After the Civil War, reconstruction proceeded in Florida at a decidedly slow pace, but by the end of the nineteenth century, Florida's population had increased to approximately 400,000 people (Marth and Marth 1988). This was due to homesteading acts as well as the citrus, naval stores, lumber, cattle, phosphate, and tourist industries. Major railroads were constructed throughout the state during this time. The railroads built by Henry Plant, William Chipley, and Henry Flagler opened up previously undeveloped areas of the state. Freezing temperatures in northern parts of Florida encouraged the development of the citrus industry in south Florida, and growers began the long process of converting swampland to farmland (Gannon 2003).

Governor Napoleon Bonaparte Broward brought Progressive politics to Florida at the turn of the century, calling for improved education, health standards, natural resource protection, development of south Florida, and prison reform, among other issues. Social change occurred rapidly in Florida in the early twentieth century. Electrical and telephone service reached many parts of the state, and commercial goods were more accessible (Gannon 2003). The early twentieth century also saw the beginning of prohibition. Florida's geographical location and miles of coastline made it very attractive to smugglers bringing liquor from the Bahamas and other Caribbean islands (Gannon 1996).

For Florida, the 1920s were a time of boom and bust, both fueled by real estate and land development. Swelling property prices and land values fed booms in transportation, construction, and banking. The state became a desirable vacation and retirement destination. In 1926, Florida's economy collapsed and bank failures became

daily occurrences. Two major hurricanes in 1926 and 1928 and the arrival of the Mediterranean fruit fly in 1929 complicated matters. Despite the blow to the citrus industry, agriculture (fruit and truck farming, cotton, corn, and cattle) remained the economic mainstay of the state. Although real estate and tourism rebounded slightly towards the end of the decade, the forward momentum was halted by the stock market crash of 1929 (Gannon 1996).

In sharp contrast to the glamorous lifestyles of the wealthy on Florida's coasts, African-American life in Florida for the first half of the twentieth century was defined by political and social repression. Blacks were kept from voting by the Poll Tax and all-white primaries. The turpentine industry imposed a type of forced labor on many black workers (Gannon 2003).

New Deal politics and tourism dollars helped during the depression of the 1930s, yet Florida's economy benefited from the onset of World War II. Its temperate climate led to its extensive use for training troops, and it was not unheard of to spot German submarines off the Atlantic coast. The development of the highway system that accompanied this military growth contributed to a boom in tourism after the war ended. Industry and agriculture also rebounded during the 1940s. Both migrant labor and labor unions became more common (Gannon 2003).

In the second half of the twentieth century, Florida has experienced a tremendous influx of population from within the United States and from other countries, including Cuba and Haiti. Cape Canaveral on the Atlantic coast has been the site of many historic advances in space exploration. Tourist attractions bring millions of visitors from around the world to Florida every year. Industry and agriculture continue to thrive in Florida today.

Florida East Coast Railway

One of the most important developments in the history of Florida was the coming of the railroads in the late 1800s. Key among them along the east coast of the state was the Florida East Coast Railway (FEC). This railroad, which in large part spurred the growth of southeast Florida by allowing for a great increase in the movement of people and goods to and from the area, owed itself to the initiative of Henry M. Flagler. Making his first fortune in 1867 as a founding member of the company that became the Standard Oil Company, Flagler did not set out to be a railroad magnate when he first visited Florida as a tourist in the winter of 1877-1878 (Bramson 2003). Due to the poor health of his wife, the Flaglers were advised to spend some time in the favorable climate of Florida. They visited Jacksonville, which was about as far south as the railroad extended at that time. After returning to New York, his wife’s condition eventually worsened, and she died of tuberculosis in 1881. In 1883, Flagler remarried, and he and his new wife Ida honeymooned in St. Augustine. The Flaglers fell in love with the city along with the beautiful vegetation and pleasing climate and began to spend more and more time away from their home on Long Island (Harner 1973; Turner 2003).

While Flagler was infatuated with St. Augustine, he also recognized that the lodgings were not to his standard and would never be able to entice wealthy visitors from the North (Bramson 2003). He decided to change this and, in 1885, purchased some land on the edge of town and began construction on a luxury hotel named the Ponce de Leon. He began construction on a more modest hotel, the Alcazar, across the street before the Ponce de Leon was even finished and also purchased the adjacent Casa Monica hotel. Construction materials for the hotels were brought in on the existing narrow gauge Jacksonville, St. Augustine & Halifax Fiver Railway. While serviceable for materials, this rail line was cheaply built and was known for poor passenger service. In order to meet the exacting standards of Flagler and his future hotel guests, it required upgrading. In 1886, Flagler purchased a controlling share of the railroad and set about installing standard gauge rails and adding new cars and locomotives. He even added a bridge over the St. Johns River to bypass the ferry service that was fraught with delays (Harner 1973; Turner 2003).

When the Ponce de Leon hotel formally opened in 1888, Flagler and his wife made it to the festivities in their private railroad car that traveled between Jacksonville and St. Augustine on the railroad Flagler purchased (Harner 1973). With a railroad to get them to Florida and a grand hotel in which to stay, get-rich-quick land speculators quickly arrived. They were thinking of development, and so was Flagler. But Flagler was also interested in the transportation side of development—he wanted to move agricultural products out and manufactured products in to Florida, and he wanted people to move in both directions on his railroads. Repeating what he had done before, Flagler bought more small railroads, changed them to standard gauge, and put passenger cars on them. For free property along the right of way, Flagler extended the railroad south to Rockledge on the Indian River in modern-day Brevard County. The first locomotives arrived in Rockledge in February 1893. The railroad was slowly fulfilling one of its goals, which was to reach the newly opened citrus and truck farming lands (Harner 1973).

In 1892, the Jacksonville, St. Augustine & Indian River Railway was formed and gathered up the various railroads that Flagler had purchased. It also became a holding tank for Flagler's properties given the new land grant policy in Florida whereby 8,000 free acres of land were granted for each mile of railroad constructed (Turner 2003). In May 1893, Flagler broke ground for a new luxury hotel, the Royal Poinciana in Palm Beach. The railroad was continued south towards this location reaching Eau Gallie in June 1893, Fort Pierce in January 1894, and eventually West Palm Beach in March 1894 a month after the Royal Poinciana opened (Bramson 2003; Turner 2003).

Julia Tuttle and William Brickell, large landowners near the Miami River, tried to entice Flagler to continue the railroad to Biscayne Bay, but Flagler initially resisted because the area was so sparsely populated. Following the devastating freezes of 1894-1895 however, which did not affect citrus crops along Biscayne Bay, Flagler was convinced. Construction began south of West Palm Beach towards Miami in September 1895 (Turner 2003). That same month, the name of the railroad was formerly changed to the Florida East Coast Railway (Bramson 2003). Early in 1896, Flagler began

construction on a new luxury hotel, the Royal Palm, on Biscayne Bay, and the extension of the FEC to the Miami River was completed in April 1896. Owing its growth to the coming of the railroad, the city of Miami was incorporated a few months later in July 1896 (Turner 2003).

The end of the nineteenth century and early twentieth century saw the further expansion of the FEC including acquisition of a line between Enterprise and Titusville, extension of the railroad near Jacksonville to Mayport, and extension of the southern portion of the line to Homestead. The most ambitious FEC project was started in 1905 and was the Key West Extension. This monumental task involved bridging the expanses between individual keys and even adding to the island of Key West itself to create enough space to accommodate a railway terminal and docks. Despite hardships, including an October 1906 hurricane that killed almost 150 workers, the Key West extension was completed seven years after it began. The first train arrived at Key West on January 22, 1912 with the 82-year-old Henry Flagler on board (Bramson 2003; Turner 2003).

During the 1920s boom years in Florida, the FEC saw substantial growth. New locomotives and cars were added, new lines were built, and new stations and other facilities were constructed. A line along the east side of Lake Okeechobee running mostly through western Martin County was added. Most significantly, the mainline between Jacksonville and Miami was double tracked to allow for increased traffic. In 1926, twelve trains per day operated on the FEC mainline (Bramson 2003; Turner 2003).

The Depression hit the FEC hard, with bankruptcy declared in 1931. The corporation went into receivership and operated at a much smaller scale. The FEC witnessed ups and downs in revenue as the years progressed as well as legal wrangling resulting from the bankruptcy. It was not until 1961 that the FEC finally emerged from bankruptcy as a new corporation under the direction of Edward Ball. The early 1960s also saw labor disputes and strikes that interrupted service. Although passenger service was resumed in 1965 on a limited basis, it was finally suspended in 1968. After this, the FEC focused on freight and piggyback containers. Revenues increased drastically and the $100 million mark was surpassed in 1980 (Bramson 2003; Turner 2003). The FEC currently operates 351 miles of mainline track along the east coast of Florida (Florida East Coast Railway, LLC 2009).

APPENDIX I:

PREVIOUS CULTURAL RESOURCES SURVEYS CONDUCTED WITHIN AND ADJACENT TO THE EAST-WEST CORRIDOR

Previous Cultural Resource Surveys Conducted Within or Adjacent to the East-West Corridor by Survey Number

Survey No.	Survey Title	Author(s)	Pub. Date	Relevant County
363	An Archaeological and Historical Survey of the Proposed Curtis H. Stanton Energy Center Railroad	Daniel, Randy and Francisco de la Fuente	1981	Orange
469	Improvements to the Orlando International Airport	Browning, William D.	1977	Orange
2420	CRAS of the Proposed Magnolia Ranch Development Site, Orange County, Florida	Piper Archaeology	1990	Orange
2391	Archaeological Assessment of Six Selected Areas in Brevard County: a First Generation Model	Bense, Judith A. and John C. Phillips	1990	Brevard
2556	CRAS: International Corporate Park, Orange County, Florida	Richards, Storm L.	1990	Orange
2835	Historic Properties Survey within the City of Cocoa, Florida	Historic Property Associates	1991	Brevard
2845	CRAS of the Orlando-Orange County Expressway Authority's Southern Connector, Orange County, Florida.	Austin, Robert J. and Charles Fuhrmeister	1991	Orange
2926	CRAS of SR-528/Beeline Expressway Interchange at I-95, Brevard County, Florida.	Browning, William D.	1991	Brevard
7943	CRAS of SR 5 (US 1) from Barnes Boulevard to Cidco Road, Brevard County	Southeastern Archaeological Research	2001	Brevard
5250	CRAS for the SR 15 from SR 528 to CR 506 (Conway Road), PD&E Study, Orange County, Florida	Janus Research	1998	Orange
5346	A CRAS of SR 520 from I- 95 in Brevard County to SR 50 in Orange County, Florida	Johnson, Robert E.	1996	Orange
7586	Old McCoy Road	Modlin, Elaina J.	2000	Orange
5840	CRAS of the Proposed Buccaneer Gas Pipeline, Florida	Estabrook, Richard W.	2000	Orange and Brevard
6794	CRAS for the I-95 PD&E Study from SR 514 to SR 50, Brevard County, Florida	Janus Research	2001	Brevard
6850	Phase I Cultural Resource Survey of Florida Gas Transmission Company Phase VI Expansion Loop C, Loop D, Loop E, Leesburg Lateral Loop, Cape Kennedy Lateral Loop, and Stanton Lateral	Pochurek, James and Anne V. Stokes	2001	Orange and Brevard

Survey No.	Survey Title	Author(s)	Pub. Date	Relevant County
6962	Cultural Resource Survey of the Proposed: Loop E Access Road 19A (Clay Co.), Stanton Lateral Contractor Yard (Orange Co.), FGT Phase VI Expansion, Kennedy Lateral Loop Contractor Yard and Staging Area at M.P. 3.9 (Brevard Co.), FGT Blanket Certificate Authority	Pochurek, James and Anne V. Stokes	2001	Orange and Brevard
7391	Florida Gas Transmission Company Phase VI Expansion Project, Cultural Resource Survey Report #7 Modification to Support Alignment Drawings Rev. C & D	Stokes, Anne V.	2002	Orange
8398	A CRRS of the Cidco Road Tower Site County: Brevard	Luxon, Tiffany L.	2001	Brevard
10756	An Archaeological Survey of the Proposed Space Needle Residential Development, Brevard County, Florida	Penders, Thomas E.	2004	Brevard
11594	CRAS for the SR 528 PD&E Study from SR 520 to the Port Canaveral Terminal B Interchange, Orange and Brevard Counties	Janus Research	2005	Orange and Brevard
12002	An Archaeological and Historical Survey of the Beeline and I-95 Tower in Brevard County, Florida	Ambrosino, Meghan L	2005	Brevard
12545	CRAS of the SR 528/SR 524 and SR 528/US 1 Interchange Reconstruction: Addendum to CRAS of the SR 526 PD&E Study from SR 520 to Port Canaveral's Terminal B Interchange in Orange and Brevard County, Florida	Janus Research	2005	Orange and Brevard
13720	CRAS, Randal Park, Orange County, Florida	Dickinson, Martin F., Rebecca Klein, and Lucy B. Wayne	2006	Orange
15961	CRAS of the East Airfield Development Area, Orange County, Florida	ACI	2008	Orange
18373	Historic Structures Assessment Survey US 1 from Rosa L. Jones Drive to Pine Street and US 1 from Pine Street to Cidco Road, Brevard County, Florida	Salo, Edward and Ryan Vandyke	2011	Brevard

APPENDIX J:

PREVIOUS CULTURAL RESOURCES SURVEYS CONDUCTED WITHIN AND ADJACENT TO THE NORTH-SOUTH CORRIDOR

Previous Cultural Resources Surveys Conducted Within and Adjacent to the North-South Corridor

Survey No.	Survey Title	Author(s)	Pub. Date	Relevant County
148	Cultural Resource Reconnaissance of Hobe Sound National Wildlife Refuge, Martin County, Florida	Fryman, Mildred L., James J. Miller, and David E. Swindell	1979	Martin
629	State Project #88505-3601, Storm Grove Road from SR 505 to East of US 1	Browning, William D. and Ross L. Morrell	1977	Indian River
638	Gar-Con Development, Inc.	Sigler-Lavelle, Brenda	1982	Brevard
949	CRAS of the proposed St. Sebastian Planned Unit Development, Indian River County, Florida	Ballo, Janice R., Kenneth W. Hardin, and Harry M. Piper	1983	Indian River
1591	Proposed Milling, Resurfacing, and Widening of SR 5/US 1, from Indian River County Line South to Bridge 940029 over Taylor Creek, in St. Lucie County, Florida	Browning, William D. and Melissa G. Wiedenfeld	1988	St. Lucie
1817	CRAS of the Proposed Sea Branch Development Site, Martin County, Florida	Austin, Robert J. and Janice R. Ballo	1987	Martin
2035	West Palm Beach Survey: First Year Final Report	Miller, Elizabeth L.	1989	Palm Beach
2149	Report of Supplemental Investigation, State Project No. 70180-1505.	Browning, William D.	1989	Brevard
2368	Historic Properties Survey of Rockledge, Florida	Olausen, Stephen A.	1990	Brevard
2535	Northwood Survey: Final Report	Miller, Elizabeth L.	1990	Palm Beach
2549	Historic District Survey of Northwest Area West Palm Beach, Florida	Munnings, Elizabeth S.	1989	Palm Beach
2670	Historic Properties Survey of the City of Vero Beach, Florida	Historic Property Associates	1990	Indian River
2686	Cultural Resource Assessment Request, Proposed Improvements to US 1/SR 5, Indian River County, Florida	Browning, William D. and Melissa G. Wiedenfeld	1987	Indian River
2761	Historic Properties Survey of the City of Stuart, Florida	Historic Property Associates	1991	Martin
2835	Historic Properties Survey within the City of Cocoa, Florida	Historic Property Associates	1991	Brevard
2978	Historic Architectural Survey: Melbourne, Florida	Olausen, Stephen A.	1991	Brevard

Survey No.	Survey Title	Author(s)	Pub. Date	Relevant County
3095	CRAS of SR 710 from SR 809 (Military Trail) to SR 5/US 1 in Palm Beach County, Florida	McMurray, Carl	1992	Palm Beach
3170	An Archaeological Survey of Indian River County Florida, AHC Tech Report #55	Archaeological and Historical Conservancy	1992	Indian River
3312	Historic Properties Survey of Fort Pierce, Florida	Historic Property Associates	1992	St. Lucie
3439	CRAS of the Proposed Upgrade of SR 708 from SR 710 to Garden Road and Proposed Jurisdictional Change of SR 708 from C-17 Canal to SR 5/US 1 in Palm Beach County	McMurray, Carl	1992	Palm Beach
4104	An Archaeological Survey of Martin County, Florida	Carr, Robert S., Linda Jester, and Jim Pepe	1995	Martin
4130	A Cultural Resource Assessment Survey of US 1 From Aurora Road to SR 404, Brevard County, Florida	Ashley, Keith H., Marsha A. Chance, and Greg C. Smith	1994	Brevard
4363	Cultural Resource Assessment of A Proposed Roadway Expansion to SR 5/US 1 from South of Kings Highway to North of 4th Street (Indian River Boulevard)	Haiduvan, Richard, Scott P. Lewis, and Karen Webster Milano	1995	Indian River and St. Lucie
4444	An Archaeological Assessment of the Savannas State Reserve, St. Lucie and Martin Counties, Florida	Newman, Christine and Ryan J. Wheeler	1996	St. Lucie and Martin
4818	Historic Architectural Survey of Martin County, Florida	Historic Property Associates	1997	Martin
4980	Assessment Survey of Archaeological Resources, SR 786/PGA Boulevard Grade Separation at SR 811/Dixie Highway and Associated Water Retention Areas, Palm Beach County, Florida	Lewis, Scott P.	1997	Palm Beach
5072	Cultural Resource Assessment: A Proposed Roadway Resurfacing, Re-striping, and Traffic Signalization to Northwood Road, 24th Street, 25th Street, 58th Street, and 59th Street, from Dixie Highway to SR 5/US 1/Broadway Avenue, West Palm Beach, Florida	Milano, Karen Webster	1995	Palm Beach

Survey No.	Survey Title	Author(s)	Pub. Date	Relevant County
5092	A CRAS of Study Area M-12 in St. Lucie County, Florida	Ashley, Keith H., Marsha A. Chance, and Steve Ferrell	1997	St. Lucie
5244	A CRAS of the Hobe Sound Land Company Laurel Lane Tract, Martin County, Florida	Bland, Myles C.P.	1998	Martin
5301	Town of Lake Park Historic Resources Report	Janus Research	1998	Palm Beach
5585	CRAS of Red Stick Golf Club, Indian River County, Florida	Fitts, Mary Beth, Paul L. Jones, and Juliet K. Tatum	1999	Indian River
5928	A Preliminary Archaeological Survey of the City of West Palm Beach, Florida	Austin, Robert J.	2000	Palm Beach
6039	A Phase II Archaeological Survey of Martin County, Florida	Carr, Robert S., Chris Eck, and James Pepe	1998	Martin
6105	An Archaeological Survey of St. Lucie County, Florida	Carr, Robert S. and Jim Pepe	2000	St. Lucie
6170	An Archaeological Survey of the Dixon-Butts Parcel, Martin County, Florida	Beriault, John G. and Robert S. Carr	2001	Martin
6850	Phase I Cultural Resource Survey of Florida Gas Transmission Company Phase VI Expansion Loop C, Loop D, Loop E, Leesburg Lateral Loop, Cape Kennedy Lateral Loop, and Stanton Lateral	Pochurek, James and Anne V. Stokes	2001	Brevard
6986	Archaeological Resource Assessment Survey of the Proposed SR 715/Monterey Road Expansion from SR 5/US 1 to SR A1A, Martin County, Florida	Lewis, Scott P., Frank D. Rodriguez, and Karen Webster	1999	Martin
7130	A Phase I Cultural Resources Survey of the M-8 Dredged Material Management Area, St. Lucie County, Florida	Koski, Steven H. and Jennifer Langdale	2001	St. Lucie
7336	An Archaeological and Historical Survey of the Proposed Melbourne Village Tower Location in Brevard County, Florida	Sims, Cynthia L.	2002	Brevard
7347	A CRAS of the 13th Street Realignment Project	Janus Research	2002	Palm Beach

Survey No.	Survey Title	Author(s)	Pub. Date	Relevant County
7374	An Archaeological and Historical Survey of the Proposed Savannah Road Tower Location in Martin County, Florida	Batategas, Juliet T.	2001	Martin
7546	An Archaeological and Historical Survey of the Proposed SE Port Salerno Tower Location in Martin County, Florida	Batategas, Juliet T.	2002	Martin
7652	A Cultural Resource Reconnaissance of the Proposed Jurisdictional Roadway Transfers in St. Lucie County, Florida	Estabrook, Richard W., Lisa N. Lamb, and Patricia H. Spriggs	2002	St. Lucie
7943	CRAS of SR 5/US 1 from Barnes Boulevard to Cidco Road, Brevard County	Southeastern Archaeological Research	2001	Brevard
8126	An Archaeological and Historical Survey of the Proposed Jupiter Eyeball Tower Location in Palm Beach County, Florida	Jones, Paul L. and Cynthia L. Sims	2001	Palm Beach
8127	An Archaeological and Historical Survey of the Proposed Sebastian Tower Location in Indian River County, Florida	Jones, Paul L. and Cynthia L. Sims	2001	Indian River
8388	CRAS of the Barton Park Manor Stormwater Management Area, Rockledge, Brevard County, Florida	Penders, Thomas E.	2001	Brevard
8398	A CRRS of the Cidco Road Tower Site County: Brevard	Luxon, Tiffany L.	2001	Brevard
8472	A CRAS of the Riviera Beach Harbor High School Site, Palm Beach County, Florida	Janus Research	2002	Palm Beach
8554	An Archaeological and Historical Survey of the Grant/Palm Bay Tower Location in Brevard County, Florida	Sims, Cynthia L.	2001	Brevard
8557	A CRAS for the SR 5/US 1 PD&E Study, Martin County, Florida	Ambrosino, James N.	2002	Martin
8594	An Archaeological and Historical Survey of the Proposed Burns Road Tower Location in Palm Beach County, Florida	Jones, Paul L. and Audrey Kennedy	2001	Palm Beach

Survey No.	Survey Title	Author(s)	Pub. Date	Relevant County
9061	Phase I Cultural Resource Survey and Archaeological Inventory of the Onshore Florida Portion of the Proposed Seafarer U.S. Pipeline System Project in Palm Beach and Martin Counties, Florida	Athens, William P., Katy Coyle, and Kari Krause	2003	Martin and Palm Beach
9251	Phase I Cultural Resource Survey of the Marie Lakes Project, Brevard County, Florida	Stokes, Anne V.	2003	Brevard
9286	A Cultural Resource Assessment of SR 5/US 1 from 200 Feet South of Bridge #940029 to 1600 Feet North of Bridge #940029 in St. Lucie County, Florida	Nolte, Kelly and Cynthia L. Sims	2003	St. Lucie
9310	Cultural Resources Survey and Inventory of the Seafarer U.S. Pipeline System, Inc.'s Proposed 26-Inch Gas Pipeline, Florida State Waters Boundary to the Florida Mainland	Duncan, David, Christopher Goodwin, and Harley Meier	2004	Martin and Palm Beach
9317	An Archaeological Assessment of Stuart Business Park, Martin County, Florida	Mankowski, Joseph F.	2003	Martin
9355	A Re-Assessment of Cultural Resource Surveys of 16th and 17th Street from West of 14th Avenue to East of SR 5/US 1 in Indian River County, Florida	Nolte, Kelly and Cynthia L. Sims	2003	Indian River
9478	An Archaeological and Historical Survey of the Old Fort Park, Fort Pierce, Florida	Carr, Robert S., Alison Elgart-Berry, and Tim Harrington	2003	St. Lucie
9482	Phase I Cultural Resources Survey of the O-23 Dredged Material Management Area, Martin County, Florida	Koski, Steven, Jennifer Langdale, and Pam Vojnovski	2003	Martin
9684	St. Lucie County Historic Resources Survey	Janus Research	2003	St. Lucie
9985	A CRAS of the Proposed Coconut Cove Development Project, St. Lucie County, Florida	Johnson, Robert E.	2004	St. Lucie
10174	Section 106 Case Study Report for SR 5/US 1 from the South Relief Canal to North of Indian River Boulevard in Indian River County, Florida	Wheeler, Ryan J.	2004	Indian River

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10175	Cultural Resource Reconnaissance of SR 5/US 1 from 6th Avenue to 20th Place, Indian River County, Florida	Sims, Cynthia L.	2004	Indian River
10207	A CRAS of SR 707 Proposed Jurisdictional Roadway Transfer from Savanna Road to the Jensen Beach Causeway in Martin County, Florida	Knowles, Jeanette and Cynthia L. Sims	2004	Martin
10258	CRRS and Section 106 Review: Vertex-AAAB Cellular Tower	Scupholm, Carrie	2004	Palm Beach
10259	CRRS and Section 106 Review: Vertex-AAYW Cellular Tower	Pracht, Jodi. B. and Carrie Scupholm	2004	Palm Beach
10263	An Intensive CRAS of Boozer Tracts A & B, Brevard County, Florida	Handley, Brent M. and Ryan O. Sipe	2004	Brevard
10603	Assessment of Potential Effects Upon Historic Properties: Proposed 120-Foot Mancil Tractor Wireless Telecommunications Tower (Houston Cuozzo Group), Martin County, Florida	Parker, Brian T.	2004	Martin
10690	A Phase I Archaeological Survey of the 69th Street Parcel, Indian River County, Florida	Penders, Thomas E.	2004	Indian River
10698	Assessment of Potential Effects Upon Historic Properties: Proposed 175-Foot Harris Corporation Replacement Wireless Telecommunications Tower (Verizon Wireless 082530-1), Brevard County, Florida	Florida Archaeological Consulting, Inc.	2004	Brevard
10799	A CRAS of the Proposed Wolf's Corner Development Project, St. Lucie County, Florida	Johnson, Robert E.	2004	St. Lucie
10954	Phase I Cultural Resources Survey and Archaeological Inventory of the Onshore Florida Portion of the Proposed Seafarer US Pipeline System Project in Palm Beach County, Florida	Athens, William P., Katy Coyle, and Kari Krause	2003	Palm Beach
11311	An Archaeological and Historical Survey of the Bonaventure Tower Location in Brevard County, Florida	Sims, Cynthia L.	2005	Brevard

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11594	CRAS for the SR 528 PD&E Study From SR 520 to the Port Canaveral Terminal B Interchange, Orange and Brevard Counties	Janus Research	2005	Brevard
11766	A CRRS of the Paladin Shores Tract, Brevard County, Florida	Hadley, Brent M. and Christopher T. Savage	2005	Brevard
11796	Phase 1 Cultural Resource Survey of the Highpointe Property, Indian River County, Florida	Stokes, Anne V.	2005	Indian River
12037	Historic Building Survey of South Indian River Drive (CR 707) from North of the Jensen Beach Causeway to South Citrus Avenue, Martin and St. Lucie Counties, Florida	Estabrook, Richard W.	2005	St. Lucie
12072	Archaeological Assessment and Monitoring of the Indian River Drive (CR 707) Emergency Road Restoration Project, St. Lucie County, Florida	Beriault, John G., Robert S. Carr, and Ned Gordon	2005	St. Lucie
12162	A Cultural Resources Assessment of the Pineda Causeway Realignment and Extension Project, Brevard County, Florida	Causey, Phillip	2005	Brevard
12189	A CRRS of Clearlake Crossings Brevard County, Florida	Nash, Jennifer L.F.	2005	Brevard
12392	A CRAS of the Community Redevelopment Area County: Palm Beach	Janus Research	2003	Palm Beach
12545	CRAS of the SR 528/SR 524 and SR 528/US 1 Interchange Reconstruction: Addendum to CRAS of the SR 526 PD&E Study from SR 520 to Port Canaveral's Terminal B Interchange in Orange and Brevard County, Florida	Janus Research	2005	Brevard
12566	A CRAS of the CR 510 (Wabasso Road) PD&E Study form CR 512 (Fellsmere Road) to Indian River Bridge #880052 in Indian River County, Florida	PCI	2005	Indian River
12732	A CRRS of the Kid Creek Estates Tract, Brevard County, Florida	Arbuthnot, Michael A.	2006	Brevard

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12928	A CRAS for Roadway Improvements of SR 811 (Alternate A1A) from Donald Ross Road to SR 706 (East Indiantown Road) in Palm Beach County, Florida	Carty, Thomas, J.	2006	Palm Beach
12932	Cultural Resource Assessment of SR 707 (Dixie Highway) from the US 1 Underpass to Savannah Road, Martin County, Florida	Estabrook, Richard W.	2005	Martin
12949	CRAS of SR 710 From West of Australian Avenue to Old Dixie Highway (CR 811) Palm Beach County, Florida	Janus Research	2005	Palm Beach
13217	An Archeological and Historical Reconnaissance Survey of the Blue Harbour Project Tract, St. Lucie County, Florida	Johnson Robert E.	2006	St. Lucie
13293	A CRAS of the Proposed Red Stick Development Tract, Indian River County, Florida	Johnson Robert E.	2006	Indian River
13362	Phase 1 Cultural Resource Survey of the Indian River National Bank and Sebastian Medical Project, Indian River County, Florida	Nodine, Bruce	2006	Indian River
13483	CRRS and Section 106 Review: Vertex-AARB Cellular Tower 535 Park Avenue, Lake Park, Palm Beach County, Florida 33403 Township 42 South, Range 43 East, Section 21	Scupholm, Carrie	2004	Palm Beach
13575	A CRRS of the Universal/TV 27 West Tract Indian River County, Florida	Kozma, Thomas J. and Christopher A. Schaefer	2006	Indian River
13582	A CRRS of the Universal/TV 1 Tract Indian River County, Florida	Kozma, Thomas J. and Christopher A. Schaefer	2006	Indian River
13749	An Archaeological and Historical Survey of the Southeastern Studies Project Area in Indian River County, Florida	Carty, Thomas, J.	2007	Indian River
13950	An Intensive CRAS of the TV-1 Williamz Tract Indian River County, Florida	Nash, Jennifer L.F. and Christopher A. Schaefer	2007	Indian River
14000	CRRS South Florida East Coast Corridor Transit Analysis Miami-Dade, Broward and Palm Beach Counties	Janus Research	2006	Palm Beach

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14147	A Preliminary Archaeological Survey of the Main Canal Vortex Treatment System/Vero Site, Vero Beach, Florida	Penders, Thomas E.	2005	Indian River
14150	An Archeological and Historical Survey of the Proposed Indian River County Administration Complex, Vero Beach, Florida	Penders, Thomas E.	2005	Indian River
14203	An Underwater Archaeological Remote Sensing Survey of the Lower St. Sebastian River in Brevard County and Indian River Counties, Florida	Mid-Atlantic Technology and Environmental Research, Inc.	2004	Brevard and Indian River
14248	An Archaeological Survey of the Schlitt Parcel, Indian River County, Florida	Penders, Thomas E.	2005	Indian River
14299	An Archeological Reconnaissance Survey of the SE Rohl Way Project Tract, Martin County, Florida	Johnson, Robert E.	2007	Martin
14366	An Archeological and Historical Survey of the Jarvis Parcel Project Area in Indian River County, Florida	Driscoll, Kelly A.	2007	Indian River
14380	Fort Pierce Historic Properties Survey, Fort Pierce, St. Lucie County, Florida	TRC Environmental, Inc.	2007	St. Lucie
14397	CRRS SR 714 (Monterey Road) from Palm City Road to Dixie Highway, Martin County, Florida	Estabrook, Richard W.	2005	Martin
14572	Phase I Cultural Resource Assessment Commons at Vero Indian River County, Florida	Dickinson, Martin F., Christopher Rayle, and Lucy B. Wayne	2007	Indian River
14700	An Archaeological and Historical Survey of the 77th Street Commerce Village Project Area in Indian River County, Florida	Ambrosino, Meghan L.	2007	Indian River
15089	Jonathan Dickinson State Park, East Boundary Fire Break, Martin County	Richardson, Barry	2008	Martin
15160	A CRAS of the North County Charter School Project Area in Indian River County, Florida	Ambrosino, Meghan L.	2008	Indian River
15973	SHOPCO Advisory Corporation River Bend Development Project Located in Indian River County, Florida: Cultural Resources Assessment	Fillman-Richards, Jeanne and Storm L. Richards	2000	Indian River

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16119	Historic Resource Survey Update of the Original Town and Osceola Park Area Neighborhoods	Brady, Anna J.	2008	Indian River
16338	CRAS of the SR 732 Jensen Beach Causeway (Frank A. Wacha) Bridge Replacement PD&E Study from Savannah Road to State Road A1A/Ocean Boulevard in Martin County	Janus Research	1996	Martin
16741	A CRAS of the FPL Ranch-Riviera Transmission Line ROW, Palm Beach County, Florida	Arbuthnot, Michael A.	2009	Palm Beach
18080	Phase I Cultural Resource Survey for the 5485 US 1 Property, Indian River County, Florida	White, Matthew	2010	Indian River
18373	Historic Structures Assessment Survey US 1 from Rosa L. Jones Drive to Pine Street and US 1 from Pine Street to Cidco Road, Brevard County, Florida	Salo, Edward and Ryan Vandyke	2011	Brevard
18377	FCC Form 620 New Tower ("NT") Submission Packet: PIFEC00264.8 Tower, Martin County, Florida	Jones, Paul L.	2011	Martin
18666	CRAS of SR 5/US 1 from North of SR 7/Kings Highway to South of Oslo Road, Indian River and St. Lucie Counties, Florida	Janus Research	2011	Indian River and St. Lucie
18752	Desktop Analysis and Reconnaissance Survey for the Proposed Jurisdictional Transfer of SR 707 from the SR 5 Underpass (MP 20.702) to NE Cardinal Avenue/NE Savannah Road (MP 22.675) to City of Stuart, Martin County, Florida	Janus Research	2011	Martin
18889	Proposed Apollo-Hickory Alignment from Palm Bay North to Melbourne, Brevard County, Florida	Browning, William D. and Melissa G. Wiedenfeld	1985	Brevard
18933	A CRAS of the Seabranch East Coast Greenway (Phase II) Project, Martin County, Florida	Johnson, Robert E.	2011	Martin
18988	Cultural Resource Assessment: A Proposed Jurisdictional Property Transfer of SR A1A (Ocean Boulevard) from SR 76 to CR 714	Milano, Karen Webster	1995	Martin

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18989	Cultural Resource Assessment: A Proposed Jurisdictional Property Transfer of SR 5A (Old Dixie Cut-Off) from South Federal Highway to Old Dixie Highway	Milano, Karen Webster	1995	Martin
18990	Cultural Resource Assessment: A Proposed Jurisdictional Property Transfer of SR 76 (Colorado Avenue) from US 1 South Federal Highway to SR A1A	Milano, Karen Webster	1995	Martin
18995	CRAS, 16th and 17th Street, City of Vero Beach, Indian River County	Lewis, Scott P. and Karen Webster	1997	Indian River
19159	FEC Amtrak Passenger Rail Project: Volumes I, II, and III	PCI and Janus Research	2010	Brevard, Indian River, Martin, Palm Beach, and St. Lucie
19480	CRAR for the AAF Passenger Rail Project from West Palm Beach to Miami, West Palm Beach, Broward, and Miami-Dade Counties	Janus Research	2012	Palm Beach
19596	An Archaeological and Historical Survey of the Mangonia PIFDG00296 C Tower in Palm Beach County, Florida FCC Form 620	Mikell, Greg	2012	Palm Beach
19599	An Archaeological and Historical Survey of the West Palm Yard PIHMF00298.2 Tower in Palm Beach County, Florida FCC Form 620	Mikell, Greg	2012	Palm Beach